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BUFFON's

NATURAL HISTORY

OF

OVIPAROUS QUADRUPEDS

AND

SERPENTS.

VOL. IV.

THE

NATURAL HISTORY

OF

OVIPAROUS QUADRUPEDS

AND

SERPENTS.

ARRANGED AND PUBLISHED FROM THE PAPERS AND COLLECTIONS OF THE

COUNT DE BUFFON,

BY THE

COUNT DE LA CEPEDE,

KEEPER OF THE ROYAL CABINET, AND MEMBER OF THE ACADEMIES AND SOCIETIES OF DIJON, LYONS, BOURDEAUX, ROME, STOCKHOLM, &c. &c.

IN FOUR VOLUMES,

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TRANSLATED BY

ROBERT KERR, F. R. & A. S. S. Ed.

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ACCORDING to Linnæus, who firſt deſcribed this ſpecies from the muſeum of M. de Geer, it is found both in South America and India, is of a pale bluiſh colour, is fourteen inches and a half long, and has an hundred and forty large plates on the belly, with fifty three pairs of ſmall plates on the under ſide of the tail †. Typhius.

* C. Typhius. Syſt. nat. ed. Gm. i. 1094. G. 125. Muſ. de Geer. Weigel, Abh. Nat. Geſ. i. 15. n. 6.—Le Typhie. Encyclop. Method.

† In Gmelins edition, another individual is quoted, probably from Weigel, having an hundred and fifty-four of the large plates and only thirty-eight pairs of ſmall ones.—T.

Typhius. In the royal cabinet there is a ſpecimen of a viper, of which the upper ſide of the body is a very dark green without ſpot, having an hundred and forty-one large plates, and fifty pairs of ſmall plates, which we have thought ſhould be referred to this ſpecies; more eſpecially as either the green colour in our ſpecimen, or the blue in that deſcribed by Linnaeus, may have been produced by the ſpirits of wine in which they were preſerved. The ſpecimen in the royal cabinet is nineteen inches and a half long, of which the tail meaſures three inches ten lines. The top of the head has nine large ſcales in four rows. The ſcales of the back are oval and ridged. The jaws have no poiſon fangs. The belly and under ſide of the tail are yellowiſh, each plate having two blackiſh ſpots, which form two longitudinal rows. The foremoſt plate has no ſpot, and the two next have only one each; and the under ſurface of the tail has only one row of theſe ſpots.

Sp. XLI. *THE QUEEN VIPER* *.

Queen Viper.

THIS ſpecies is firſt deſcribed by Linnaeus, from the collection of Prince Adolphus, as inhabiting South America and India like the former. The upper part of the body is brown with a violet tinge, and the under ſide is variegated with white and black or dark brown, the plates being alternately white and dark brown or black. The under ſurface of the head and of the tail are white. This ſpecies is known to have no poiſon fangs, and conſequently to be innoxious; but nothing farther is known reſpecting it.

* C. Reginae. Syſt. nat. ed. Gm. i. 1096. G. 125. Muſ. Ad. Fr. 24. t. 13. f. 3. Weigel. Abh. Nat. Geſ. i. 22. n. 24.—Le Regine. Encyclop. Method.

Sp. XLII. *THE BLACK-BAR VIPER* *.

Black-bar Viper.

THIS is one of the ſpecies of viper to which ſeveral naturaliſts have given the name of ſerpent of Eſculapius; but which term we have choſen to apply ſolely to a ſpecies which is found in the environs of Rome.

The preſent ſpecies is not venomous. It has nine large ſcales on the head in four rows, over which it is particularly marked between the eyes by a black bar, from which the trivial name here uſed is derived †.

The

* C. Aeſculapii. Syſt. nat. ed. Gm. i. 1099. G. 125. Amoen. ac. i. 497. n. 15. Muſ. Ad. Fr. i. 29. t. 11. f. 2. Gronov. Muſ. ii. 59. n. 18. Weigel. Abh. Nat. Geſ. i. 24. n. 27. 28. Boddaert, nov. act. Caeſ. vii. 19. n. 6. Scheuchz. phyſ. ſacr. t. 654. f. 5. Seba, Muſ. ii. t. 18. f. 4. Molin. hiſt. nat. Chili. 197.—Natrix Aeſculapii. Laur. amph. 76. n. 151.—La Bande-noire. Encyclop. Method.

† In the Syſtema Naturae this bar is ſaid to be double.—T.

Black-bar Viper.

The ſcales on the back are oval and plain. The ground colour is pale, with ſeveral tollerably large tranſverſe black bars, ſome of which incircle the body. It has commonly an hundred and eighty large plates, and forty-three pairs of ſmall plates. The uſual length is eighteen inches, of which the tail meaſures three inches. This viper is found in India; and, according to Molina, is very common in Chilli, where it ſometimes has only one hundred and ſeventy ſix large plates, and forty-two pairs of ſmall ones*.

"The head is broad, the body ſomewhat ſmaller, and the tail thin but blunt. It is brown above and whitiſh underneath, with white and black bars, the latter being divided by a narrow white circular line †."

* Beſides theſe numbers, and thoſe given a little before, there are four others in Gmelins edition of the Syſtema Naturae, as under:—T.

174—47 189—44 181—42 176—40

† This deſcription, which varies a little from that of our original, is copied from the Syſtema Naturae, as edited by Gmelin.—T.

SP. XLIII. *THE NIMBLE VIPER* *.

Nimble Viper.

WE have only to look at this ſpecies to ſee that it muſt be extremely light and quick in its motions, as it is extremely delicately ſhaped, and very ſlender in proportion to its length. The ſpecimen in the royal cabinet is twenty inches long, of which the tail is four inches and a third. The head is armed with nine large ſcales in four rows. The jaws have no poiſon fangs. The top of the head is clear white, with a ſmall brown bar acroſs between the eyes, which are large. The ſcales on the back are lozenge ſhaped and plain. The whole upper ſurface is marked with alternate white and brown tranſverſe bars. According to Laurenti, the brown bars are dotted with black.

* C. agilis. Syſt. nat. ed. Gm. i. 1102. G. 125. Amoen. ac. i. 304. n. 33. Muſ. Ad. Fr. i. 27. t. 21. f. 2.—Ceraſtes agilis. Laur. amph. 82. n. 171.—L'Agile. Encyclop. Method.

black. The under surface of the body is whitish. It has usually an hundred and eighty-four large plates, and fifty pairs of small ones; but we have counted on one individual, an hundred and seventy-four only of the former, and sixty of the latter. It inhabits Ceylon; and the individual in the royal collection was sent under the name of *Caterpillar-eater*, from which we presume that these are its principal food. Nimble Viper.

Sp. XLIV. *THE PADERA* *.

THIS species is first described by Linnaeus, from the museum of Prince Adolphus, and is said to be found in India and South America. It has an hundred and ninety-eight large plates, and fifty-six pairs of small plates. The distribution of its colours is remarkable; on a white ground, Padera.

* C. Padera. Syst. nat. ed. Gm. i. 1105. G. 125. Mus. Ad. Fr. ii. 44.—Le Padere. Encyclop. Method.

Padera. the back is marked with two rows of brown spots, each pair being connected by a brown line; and each side has one row of similar detached spots.

SP. XLV. *THE GRISON**.

Grison. THIS species is white or hoary, with transverse reddish white bars or large spots, under each of which is a bright white spot; this gives it a grey appearance at some distance, from which the trivial name here used is derived. It has an hundred and eighty-large plates, and seventy pairs of small ones†. It is found in South America and in India. The head is covered with

* C. canus. Syst. nat. ed. Gm. i. 1106. G. 125. Mus. Ad. Fr. i. 31. t. 11. f. 1. Gronov. zooph. 20. n. 95. Boddaert, nov. act. Caes. vii. 20. n. 13.—Le Grison. Encyclop. Method.

† In Gmelins edition of the Systema Naturae, two other specimens are given; one having 200—64, and the other 194—98.—T.

with imbricated scales, like those on the back. Grison.

Sp. XLVI. *THE FLAT-TAILED VIPER* *.

THIS species is very readily distinguishable from all the other known vipers, by the peculiar conformation of its tail. Instead of being round, as in most vipers, it is flattened at the sides, and so much so at the extremity as to be quite thin, like the blade of a knife. The tip of the tail is blunt, and terminated by two large round scales, giving it somewhat of a double appearance. When creeping, this tail only touches the ground by its thin under edge, which is covered by pairs of small plates that are hardly distinguishable from those which cover the back. From this conformation, Flat-tailed Viper.

* C. laticaudatus. Syst. nat. ed. Gm. i. 1107. G. 125. Mus. Ad. Fr. i. 31. 16. f. 1.—Laticauda scutata. Laur. amphib. 110. n. 241.—Le Large-queue. Encyclop. Method.—La Queue-plate, in the original.

Flat-tailed Viper.

mation, the tail can be of very little use in creeping; and seems better fitted for striking sidewise, or for swimming, in which it will act much like the tail of an eel. Hence we should presume that this species lives much in water; but we are ignorant of its habitudes. We only know that it is found in India *.

The head is armed with nine large scales in four rows. The belly is covered by two hundred and twenty-six large plates †, and forty-two pairs of small plates cover the under edge of the tail.

In the specimen which we examined, there seemed to be two poison fangs in the upper jaw; but as our specimen was by no means in good preservation, we have preferred the opinion of Linnaeus, who had examined this species with great care, and have

* Gmelin adds South America; and says that it is found on the shore of Tongataboo, an island of the Southern ocean lately discovered.—T.

† Gmelin says only 220—42.—T.

have not therefore placed it among the venomous vipers. Flat-tailed Viper.

The ſcales on the back are rhomboidal and plain. The under ſurface of the body is almoſt white. The upper ſide is bluiſh aſh-colour, with large dark coloured tranſverſe bars, which extend over the belly, going quite round the body. In our ſpecimen, the whole length was two feet, of which the tail meaſured two inches and three quarters.

β. The Imbricated Flat-tailed Viper.*

Gmelin, in his edition of the Syſtema Naturae, gives this individual from Laurenti, as a variety of this ſpecies; but we ſhould rather have been diſpoſed to conſider it as a diſtinct ſpecies, under the trivial name of lance-tailed viper. Imbricated Flat-tailed Viper.

In

* C. laticaudatus imbricatus. Syſt. nat. ed. Gm. i. 1107. β.—Laticauda imbricata. Laur. amph. 110. n. 241.—This article is added by the tranſlator.—T.

Imbricated Flat-tailed Viper.

In this individual, the head is imbricated with scales like those on the back; while, in the flat-tailed species, it is covered by nine large scales in four rows. In this other, the tail is flatted vertically, but ends sharp like the point of a lancet.

Sp. XLVII. *THE WHITISH VIPER* *.

Whitish Viper.

THIS species, described by Linnaeus, from the museum of Prince Adolphus, is of a whitish colour, with brown transverse bars; has two hundred and twenty large plates, and fifty pairs of small plates; and is said to inhabit India and South America.

There is a specimen in the royal cabinet, which has very considerable resemblance with that above described from Linnaeus, but

* C. candidus. Syst. nat. ed. Gm. i. 1108. G. 125. Mus. Ad. Fr. i. 33. t. 7. f. 1.—Cerastes candidus? Laur. amphib. 83. n. 175.—La Blanchatre. Encyclop. Method.

but which has too few large plates to allow us to pronounce it of the same species, although its colours are very much the same. Our species measures twenty inches and three quarters, of which the tail is five and three quarters. The belly has an hundred and eighty-three large plates, and the under side of the tail eighty-seven pairs of small plates. The scales on the back are lozenge shaped and plain; and the upper jaw is destitute of poison fangs. Whitish Viper.

Sp. XLVIII. *THE ROUGH VIPER**.

THIS, like the former, is described by Linnaeus from the Adolphian museum, and is said to inhabit India and South America. It has two hundred and twenty-eight large plates, and forty pairs of small plates. Rough Viper.

* C. scaber. Syst. nat. ed. Gm. i. 1109. G. 125. Mus. Ad. Fr. i. 36. t. 10. f. 1.—L'Apre. Encyclop. Method.—La Rude, in the original.

Rough Viper.

plates. The ſcales on the back are ſo much ridged, as to have given origin to the trivial name here uſed. The upper part of the body is ſpotted with brown and black. The ſummit of the head is marked by a black ſpot, which is bifid at the hinder extremity.

Sp. XLIX. *THE TRISCALIS*.

Triſcalis.

THERE is a ſpecimen of this ſpecies in the royal collection, which was ſent from America. According to Linnæus, it is likewiſe found in India. It is one of the moſt beautiful of ſerpents. The general colour of the back is ſea-green, with four reddiſh yellow ſtreaks, which probably have a golden brilliancy when the animal is alive and in the ſun. Some way down the back theſe four ſtreaks unite into three; a little lower into two; and on the back of the tail into

* C. Triſcalis. Syſt. nat. ed. Gm. i. 1110. G. 125.—Le Triſcale. Encyclop. Method.

into one. The top of the head is armed with nine large ſcales in four rows. The ſcales of the back are oval and plain. The total length is ſixteen inches and a half, of which the tail is almoſt four inches. The belly has an hundred and ninety-five large plates, and the tail eighty-ſix pairs of ſmall plates. Triſcalis.

Sp. L. *THE LACED VIPER**.

AMONG thoſe ſerpents which are both innocent and beautiful, this ſpecies muſt be particularly diſtinguiſhed. The head is white, with a black tranſverſe bar, and a black muzzle. The back is black, with a great number of tranſverſe black bars, Laced Viper.

* C. lemniſcatus. Syſt. nat. ed. Gm. i. 1110. G. 125. Amoen. ac. i. 118. n. 6. and 413. n. 9. Muſ. Ad. Fr. i. 34. t. 14. f. 1. Weigel, Abh. Nat. Geſ. i. 35. n. 49—51. Seba, Muſ. i. t. 10. f. ult. and ii. t. 76. f. 3.—Le Lemniſque. Encyclop. Method.—La Galonée, in the original.—Natrix lemniſcata. Laur. amph. 76. n. 152.

Laced Viper.

bars, which are irregular in breadth, yet arranged with ſymetry. Every third bar is four times the breadth of the interveening two narrow ones; and this diſpoſition, joined to the perfect ſmoothneſs and gloſs of its ſcales, gives a very beautiful appearance. The back ſcales are rhomboidal. The head is no larger than the body, and is armed with nine large ſcales in four rows. It has uſually two hundred and fifty large plates, and thirty-five pairs of ſmall ones *.

This ſpecies is extremely ſmooth and round, and grows to one or two feet long. It inhabits Aſia; and, being of very gentle diſpoſitions, is readily permitted to come into the houſes, where it amuſes the inhabitants by the agility of its motions, and the beauty of its ornaments, and is even highly uſeful by deſtroying inſects and vermin.

"In

* In the Syſtema Naturae, as edited by Gmelin, the following varieties of theſe numbers are noted.—T.

264—36 265—38 246—35 233—34

" In the Syſtema Naturae, the deſcription is a little different from the above: The body being ſaid to be white, with black or ruſty bars, arranged in threes, and running together; the back ſcales having ruſty tips; and it is ſaid to be three feet long *.' Laced Viper.

Sp. LI. *THE ALIDRAS* †.

A compariſon between this ſpecies and the white viper, already deſcribed, Sp. xxxix, gives a ſenſible illuſtration of the neceſſity of more than one character, for diſtinguiſhing the ſpecies of ſerpents from each other. They are both of the ſame pure white, almoſt always without ſpot; but the alidras has much fewer large plates than the white viper, and more than double the number of ſmall plates. Alidras.

* Added by the tranſlator.

† C. Alidras. Syſt. nat ed. Gm. i. 1088. G. 125. Muſ. de. Geer.—L'Alidre. Encyclop. Method.

Alidras. The Alidras is found in India and South America, and has an hundred and twenty-one large plates, and fifty-eight pairs of small plates.

Sp. LII. *THE ANGULAR VIPER* *.

Angular Viper. THE angular viper is a native of Asia, and is destitute of venom. The top of the head has nine large scales, in four rows. The scales on the back are oval, slightly hollowed, and have a longitudinal ridge; but those on the sides are plain. The upper surface of the body is whitish, with brown cross bars having blackish edges: These bars are angular or lozenge shaped, and grow narrower towards the head and tail.

* C. angulatus. Syst. nat. ed. Gm. i. 1093. G. 125. Mus. Ad. Fr. i. 23. t. 15. f. 1. Amoen. ac. i. 119. n. 7. Weigel, Abh. Nat. Ges. i. 14. n. 4. 5. Seba, Mus. ii. t. 12. f. 3. and ii. t. 73. f. 1.—L'Anguleux. Encyclop. Method.—L'Anguleuse, in the original.

tail. The belly has an hundred and seventeen large plates, having square spots alternately on each end; and the under side of the tail has seventy pairs of small plates. This species is seldom seen above a foot long. Angular Viper.

"In Gmelins edition of the System of Nature, an individual is quoted having only an hundred and twenty large plates, and sixty pairs of small ones; and the length is said to exceed two feet. The description is likewise somewhat different from our original, as it is said to be brown or brownish, with broad transverse lozenge shaped black or blackish belts."—T.

Sp. LIII. *MINERVAS VIPER* *.

Minervas Viper.

IN the mythology of the ancient Greeks, this ſerpent was dedicated to Minerva, the Goddeſs of Wiſdom, as one of the emblems of Prudence. Around her ſtatues and altars, in the character of patroneſs and protectreſs of their city, the figures of ſerpents were ſculptured by the Athenians. A ſerpent having eſcaped, which was kept in their citadel, was conſidered by them as an omen of the anger of the goddeſs. It was probably to record this ſuperſtitious fancy, that Linnæus appropriated the trivial name here employed for this ſpecies; and we have thought fit to retain it in this work, as the moſt agreeable and moſt intereſting reflections are derived to us from the hiſtory of ancient Greece, where liberty and cultivated

* C. Minervae. Syſt. nat. ed. Gm. i. 1118. G. 125. Muſ. Ad. Fr. i. 36.—Serpent de Minerve. Encyclop. Method.—Couleuvre de Minerve, in the original.

ed nature produced ſo many great men, and ſo many fine artiſts who have immortalized their memory *. Even this ſmall and feeble ſerpent, when met with on the diſtant ſhores of India, its native country †, may produce the pleaſant recollection of grand ideas, from the name it bears, by recalling the remembrance of thoſe famous ages of antiquity. Minervas Viper.

The upper ſurface of the body, in this ſpecies, is of a fine ſea green colour of different ſhades, having a brown ſtripe along the back, and three brown ſtripes on the head. The belly has two hundred and thirty-eight large plates, and the under ſurface of the tail is covered by ninety pairs of ſmall ones.

* It is perhaps neceſſary to obſerve, leſt our author be ſuſpected of Jacobiniſm, that this paſſage was publiſhed by a French Count at Paris, in the year 1789.—T.

† The Syſtema Naturae adds South America.—T.

Sp. LIV. *THE APACHYCOATL* *.

Apachycoatl.

THERE is a ſpecimen of this ſpecies in the royal collection, which meaſures one foot nine inches in length, of which the tail is four inches and three quarters. It has no poiſon fangs, and conſequently is deſtitute of venom. The head is armed by nine large ſcales in four rows. Thoſe on the back are plain and nearly oval. The upper part of the body is blackiſh, with very irregular tranſverſe white bars. The belly is covered by two hundred and eleven large

* C. petalarius. Syſt. nat. ed. Gm. i. 1116. G. 125. Muſ. Ad. Fr. i. 35. t. 9. f. 2. Weigel, i. 42. n. 61—63. Nieremberg, lib. xii. chap. 45. Johnſton, p. 28.—Petalaire. Encyclop. Method.—Apachycoatl, of the Mexicans: Which trivial is adopted in this tranſlation, on the general principle of Buffon, and followed in the tranſlation of the Animal Kingdom, of giving the indigenous names as trivials to all animals, where theſe are known.—T.

large white plates, with grey edges forming a number of tranſverſe ſtreaks. The tail is covered underneath by an hundred and five pairs of ſmall plates, of a dark grey colour with white tranſverſe bars. Apachy-coatl.

This ſpecies is very ſubject to variations, both in the diſtribution of its colours, and the numbers of its plates. The ſpecimen deſcribed by Linnaeus, had two hundred and twelve large plates, and an hundred and two pairs of ſmall plates. We have examined one in the collection of M. Antic, having two hundred and ſixteen of the former, and an hundred and ſix pairs of the latter *.

The black and white, which are the chief colours in this ſpecies, are mingled together and contraſted very agreeably, and render it a very beautiful object. It is beſides ex-

 tremely

* In the Syſtem of Nature, as edited by Gmelin, the following variety of numbers are enumerated. 212—102 212—91 203—103 203—78. Add to theſe the two varieties mentioned in the text, viz. 211—105 and 216—106.

Apachy-coatl.

tremely gentle in its manners, and even tame and familiar. It very commonly creeps into the houſes of the natives, in the countries which it inhabits, and even lives in them; where it is extremely uſeful, by deſtroying inſects, rats, and mice. Small birds likewiſe form a part of its natural food. It is found in India, particularly in Amboina, and in the warmer regions of America, eſpecially in Mexico.

β. Mexican Apachycoatl.*

Mexican Apachy-coatl.

"GMELIN conſiders this Mexican viper as a diſtinct ſpecies, and ſays that it reſembles

* C. Novae-Hiſpaniae. Syſt. nat. ed. Gm. i. 1088. G. 125. Seba, Muſ. ii. t. 20. f. 1.—Ceraſtes Mexicanus. Laur. amph. 83. n. 176.

The authorities here quoted from Seba and Laurenti, are conſidered in the original as ſynonimes of the Petalaire or Apachycoatl: But, being by Gmelin conſidered as a diſtinct ſpecies, are here taken at leaſt as a variety. The former may be named the Indian Apachycoatl.—T.

ſembles the bali, already deſcribed, Sp. 36, in its head, body, and tail, placing it immediately after that ſpecies in his edition of the Syſtem of Nature, but without noting the numbers of its plates. He deſcribes it as black above and white underneath, having oblique ſtreaks on the back, and oblique bars farther towards the tail."—T. Mexican Apachycoatl.

Sp. LV. *THE DUN VIPER**.

THIS Aſiatic ſpecies is ſometimes of an uniform dun or tawny colour, more or leſs dark, from which the trivial names, in Latin, French, and Engliſh, are derived. In ſome ſpecimens, however, this ground colour is variegated with tranſverſe black Dun Viper.

* C. pullatus. Syſt. nat. ed. Gm. i. 1117. G. 125. Amoen. ac. i. 300. n. 25. Muſ. Ad. Fr. i. 35. t. 20. f. 3. Gronov. Muſ. ii. 56. n. 12. Weigel, i. 43. n. 64. Boadaert, nov. act. Caeſ. vii. 18. n. 1.—Minime. Encyclop. Method.

Dun Viper.

black bars. One of its principal diſtinctive marks, is having a half border of white to each of its back ſcales; by which the back ſeems at a little diſtance as dotted all over with white. The cheeks are very bright white, with black ſpots; and the under ſurface of the body is conſiderably paler than the back, and is ſometimes ſpotted with brown.

A ſpecimen in the royal collection meaſures three feet two inches and a half in length, of which the tail is one foot. There are no poiſon fangs in the upper jaw. The head is long, and covered on the top by nine large ſcales in four rows, and the lips are likewiſe covered with large ſcales. According to Linnaeus, this ſpecies has two hundred and ſeventeen large plates, and an hundred and eight pairs of ſmall ones; but the numbers are not always ſo large *.

Sp.

* In Gmelins edition of the Syſtema Naturae, two other ſpecimens are quoted, of which the numbers are reſpectively 215—104, and 213—108.—T.

Sp. LVI. *THE MILIARY VIPER* *.

THIS elegant ſpecies is found in India †. The upper part of the body and the ſides are brown, each ſcale having a ſmall white ſpot. The under parts of the body are white. It has uſually an hundred and ſixty-two large plates on the belly, and fifty-nine pairs of ſmaller plates on the under ſurface of the tail. Miliary Viper.

Sp

* C. miliaris. Syſt. nat. ed. Gm. i. 1099 G. 125. Muſ. Ad. Fr. 27.—Miliaire. Encyclop. Method.

† The Syſtem of Nature ſays likewiſe in South America.—T.

Sp. LVII. *THE RHOMBOIDAL VIPER* *.

Rhomboidal Viper.

WE are not to be amazed at the vaſt number of ſerpents, both ſpecies and individuals, which inhabit the inter-tropical countries. They there find that degree of warmth which ſeems congenial to their natures, and the ſmaller ſpecies find abundance of inſects to ſerve them for food. In thoſe torrid regions, where Nature has produced an innumerable multitude of inſects and worms, ſhe has likewiſe placed the greateſt number of ſerpents to deſtroy the worms and inſects; which otherwiſe would multiply ſo exceſſively, as to deſtroy all vegetable productions, and to reduce the moſt fertile regions of the earth into

* C. rhombeatus. Syſt. nat. ed. Gm. i. 1099. G. 125. Muſ. Ad. Fr. 27. t. 24. f. 2. Gronov. Zooph. 24. n. 127. Nov. act. Caeſ. vii. 19. n. 10. Laur. amph. 82. n. 170. Scheuchz. Phyſ. ſacr. t. 746. f. 2.—Rhomboïdale. Encyclop. Method.

into barren deſerts, inacceſſible to men and animals; nay even thoſe noxious and troubleſome inſects would be finally obliged to deſtroy each other, and nothing would remain but their maugled limbs. Hence a ſtrong additional motive for the inhabitants of the tropical countries being pleaſed to ſee their dwellings ſurrounded with innoxious ſerpents. Rhomboidal Viper.

The rhomboidal viper is altogether deſtitute of venom, and has a very agreeable appearance. The upper parts of the body are blue, more or leſs bright, with black ſpots, in the middle of each of which is a ſmaller rhomboidal or lozenge ſhaped blue ſpot. The belly is uſually covered by an hundred and fifty-ſeven large plates, and the tail by ſeventy pairs of ſmall ones. It is an inhabitant of India *.

SP.

* The Syſtem of Nature, as edited by Gmelin, adds South America, and quotes the two following numbers of the plates, in addition to thoſe given above, 141—56, and 140—75.—T.

Sp. LVIII. *THE PALE VIPER* *.

Pale Viper.

THIS innocuous ſerpent is of a pale colour, with a conſiderable number of grey ſpots and brown dots, placed without any order, and having a narrow interrupted blackiſh line on each ſide. The top of the head is covered by nine large ſcales in four rows. The back ſcales are oval and plain. The body is uſually very ſlender in proportion to its length, being covered underneath by an hundred and fifty-five large plates. The tail is ſo extremely ſlender, that it is difficult to count its pairs of ſmall plates; which are uſually ninety-ſix †. The individual deſcribed by Linnaeus, meaſured eighteen

* C. palidus. Syſt. nat. ed. Gm. i. 1104. G. 125. Amoen. ac. i. 499. n. 11. Muſ. Ad. Fr. i. 31. t. 7. f. 2. Weigel. i. 30. n. 39. 40.—Le Pâle. Encyclop. Method.

† In Gmelins edition of the Syſtem of Nature, there are two other individuals quoted, having the following numbers; 140—84, and 148—90.—T.

eighteen inches in length. The pale viper is found both in India and South America. Pale Viper.

Sp. LIX. *THE STREAKED VIPER**.

THIS ſpecies is found in Aſia, and ſeldom exceeds from ſix to nine inches in length. The upper parts of the body are bluiſh, with four longitudinal brown ſtreaks, from the back of the head to the end of the tail. The belly is whitiſh, with an hundred and ſixty-nine large plates; and the under ſurface of the tail has eighty-four pairs of ſmall ones †. Streaked Viper.

Sp.

* C. lineatus. Syſt. nat. ed. Gm. i. 1104. G. 125. Muſ. Ad. Fr. i. 30. t. 12. f. 1. and t. 20. f. 1. Weigel, Naturf. i. 31. n. 41. 42. Seba, Muſ. ii. t. 12. f. 3.—Le Rayé. Encyclop. Method.

† Gmelin gives the following different numbers from two other ſpecimens; 162—74, and 165—83.—T.

Sp. LX. *THE MALPOLON* *.

Malpolon.

THIS ſpecies, which inhabits Aſia, and probably Africa and America, has uſually an hundred and ſixty large plates, and an hundred pairs of ſmall plates under the tail. The individual from which the following deſcription was drawn up, is preſerved in the royal cabinet, and meaſures twenty-two inches, of which the tail is five inches and a half. The top of the head has nine large ſcales in four rows. The back ſcales are oval, with a longitudinal ridge. The tongue is very long and ſlender, by which it can very readily ſeize the inſects on which it feeds. Its colours are very beautiful, and finely diſpoſed; but as they are eaſily changed by the ſpirits, it is

* C. ſibilans. Syſt. nat. ed. Gm. i. 1106. G. 125. Amoen. ac. i. 302. n. 30.—Malpolon. Seba, Muſ. ii. t. 52. f. 4. t. 56. f. 4. and t. 107. f. 4.—Le Malpole. Encyclop. Method.

is very difficult to have exact repreſentations or deſcriptions from preſerved ſpecimens. It is blue with a great number of very ſmall black ſpots, arranged in longitudinal rows, reſembling ſtripes. On the hindmoſt two large ſcales is a bright white ſpot edged with black, half of which is on each ſcale. Its body is very ſlender in proportion to its length, from which it probably climbs trees with great facility, and twiſts about among the branches, in ſearch of ſmall birds and other animals. Malpolon.

Sp. LXI. *THE MOLURUS* *.

THIS is one of the largeſt known ſpecies of the viper genus, and approaches to ſome of the ſpecies of boa, to be hereafter deſcribed, both in its ſize and figure, and particularly in its head, which Molurus.

* C. Molurus. Syſt. nat. ed. Gm. i. 1114. G. 125. Muſ. de Geer.—Le Molure. Encyclop. Method.

Molurus. is very broad behind, narrower at the eyes, very long, and rounded at the muzzle, being ſomewhat like the head of a dog. The upper part of the head is armed with nine large ſcales in four rows. The jaws are deſtitute of poiſon fangs. The back ſcales are large, oval, and plain. Uſually this ſpecies has two hundred and forty-eight large plates, and fifty-nine pairs of ſmaller ones; but, in a ſpecimen belonging to the royal collection, we have ſeen two hundred and fifty-five of the former, and ſixty-five pairs of the latter. This ſpecimen is ſix feet long, of which the tail is nine inches, or about one eighth part of the total length. It is of a whitiſh brown red colour, having a longitudinal row of darker ſpots with brown edges on the back, and a row of ſimilar ſpots on each ſide. The molurus is found in India and South America, and, from its reſemblance to the boa, it probably has ſimilar habits with the ſpecies of that genus.

Sp. LXII. *THE TWO-STREAK VIPER* *.

Two-streak Viper.

WE are ignorant of the country from which this viper was ſent to the royal collection; but, having come along with a ſpecimen of the laſt deſcribed ſpecies, it is probably a native of India. It is deſtitute of venom, having no poiſon fangs. The head is armed with nine large ſcales in four rows. The back ſcales are lozenge ſhaped and plain. The belly has two hundred and five large plates, and the tail ninety-nine pairs of ſmall plates.

The ground colour of this ſpecies is reddiſh brown of different ſhades, with two longitudinal ſtripes of yellow, which, in the living animal, muſt have a golden brightneſs; and as each ſcale is edged with yellow, the ground ſeems to have a number of fine ſtreaks of that colour, on the whole giv-

* La Double-raye, in the original.

Two-streak Viper.

ing a very beautiful appearance. The specimen from which our description was taken, is twenty-five inches long, of which the tail is six inches and a half. It is slender in proportion to its length.

Sp. LXIII. *THE TWO-SPOT VIPER**.

Two-spot Viper.

ALONG with the two last described species, there is another in the royal cabinet, which we shall here describe. It is twenty inches and a quarter in length, of which the tail measures almost four inches. It is slender in proportion to its length; having two hundred and ninety-seven large plates, and seventy-two pairs of small plates.

The general colour is reddish brown, with a row of irregular distant white spots edged with black along the back; and having two of these a good deal larger than the rest

* La Double-tache, in the original.

reſt immediately behind the head. The top of the head has nine large ſcales in four rows. The back ſcales are lozenge ſhaped and plain. The jaws have no poiſon fangs. Two-ſpot Viper.

SP. LXIV. *THE BOIGA**.

THIS ſpecies is remarkably beautiful, combining the richeſt colours of the fineſt gems, with the ſplendor of burniſhed gold, mingled with dark brown ſhades, which contraſt and heighten its brilliant ornaments. Among ſerpents, it may be Boiga.

 ſaid

* C. Ahaetulla. Syſt. nat. ed. Gm. i. 1116. G. 125. Amoen. ac. i. 115. n. 2. & 495. n. 12 Muſ. Ad. Fr. i. 35. t. 22. f. 3. Gron. Muſ. ii. 61. n. 24. Weigel, Naturf. i. 40. n. 58—60. Boddaert, nov. act. Caeſ. vii 22. n. 23. Bradl. natur. t. 9. f. 2. Cateſby, Carolin. ii. t. 47.—Ahaetulla. Petiv muſ.—Natrix Ahaetulla Laur. amph. 79. n. 161.—Bonguatrora. Seba, Muſ. ii. t. 82. f. 1. t. 63. f. 3. and t. 12. f. 3.—Long green Borneo ſnake. Petiv. gazoph. t. 100. f. 5.—Le Boiga. Encyclop. Method.

Boiga. said to hold the same rank, in these respects, with the humming bird among the birds.

The head of the boiga is large in proportion to the body, and is covered by nine large scales in four rows. These, and the other scales on the head, are of a deep blue colour with a silky gloss; and a white* bar, edged with black, extends along the upper jaw including both eyes. The whole upper surface of the body, to the extremity of the tail, is blue, changing its tints as differently exposed to the light, and sometimes changing to emerald green; and this beautiful ground is finely variegated along the back, by a kind of chain, or small streaks, of golden yellow, as if gilded. This splendid embroidery even preserves its lustre after the animal has been long kept in spirits; the scales seeming to be so many plates of enamelled gold fixed to the skin. The whole under surface of the head and body is of a silver white, separated from the changing

* In the System of Nature this bar across the eyes is said to be black.—T.

changing blue of the back by a golden chain on each ſide, the whole length of the body. Boiga.

This fine blue and ſilver, ornamented with gold, by no means give a full idea of the beautiful embroidery of the boiga: We muſt take in all the reflected tints of ſilver colour, golden yellow, red, blue, green, and black, mingled and changing in the moſt extraordinary and beautiful manner poſſible; ſo that, when about to change its ſkin, it ſeems ſtudded with a mixed aſſemblage of diamonds, emeralds, topazes, ſaphirs, and rubies, under a thin tranſparent veil of bluiſh chryſtal. Thus, in the rich and torrid plains of India, where the moſt ſplendid gems abound, Nature ſeems to have choſen to re-unite them all, together with the noble metals, to adorn the brilliant robe of the boiga.

This is one of the moſt ſlender of ſerpents in proportion to its length. The ſpecimens in the royal collection, which exceed three feet in length, are hardly a few

Boiga. lines* in diameter. The tail is almoſt as long as the body, and at the end is like a needle for fineneſs; yet is ſometimes flattened above, below, and on the two ſides, rendering it in ſome meaſure ſquare. From the delicacy of its form, its movements are neceſſarily extremely agile; ſo that, doubling itſelf up ſeveral times, it can ſpring to a conſiderable diſtance with great ſwiftneſs. It can twine and twiſt itſelf, moſt readily and nimbly, around trees or other ſuch bodies; climbing, or deſcending, or ſuſpending itſelf, with the utmoſt facility.

The boiga feeds on ſmall birds, which it ſwallows very eaſily, notwithſtanding the ſmall diameter of its body, in conſequence of the great diſtenſibility of its jaws, throat, and ſtomach, common to it with other ſerpents: Yet we may ſuppoſe that it compreſſes and cruſhes its prey, previous to deglutition, in the ſame manner with the large ſerpents. It conceals itſelf under the foliage of trees, on purpoſe to ſurpriſe the ſmall

* A line is the twelfth part of an inch.—T.

small birds; and is said to attract them by a peculiar kind of whistling, to which the term of *song* has been applied in the description of Sebas museum: But we must consider this as an exaggeration; as its long divided tongue, and the conformation of its other organs of sound, are only adapted for producing a hiss or species of simple whistle, instead of forming a melodious assemblage of tones, like the song or warble of birds. Yet, if Nature has not ranked the boiga among the songsters of the woods, it seems to possess a more perfect instinct than other serpents, joined to more agile movements, and more magnificent ornament. In the isle of Borneo, the children play with the boiga without the smallest dread. They carry it in their hands, as innocent as themselves, and twist it about their necks, arms, and bodies, in a thousand directions. This circumstance brings to recollection, that fine emblem of candour and confidence imagined by the genius of the ancients: A child smiling on a snake, which holds him fast Boiga.

Boiga. fast in his convolutions. But in that beautiful allegory, the snake is supposed to conceal a deadly poison; while the boiga returns caress for caress to the Indian children who fondle it, and seems pleased to be twisted about by their delicate hands.

As the appearance of such nimble and innocent animals in the forests must be extremely beautiful, displaying their splendid colours, and gliding swiftly from branch to branch, without possessing the smallest noxious quality; we might regret that this species should require a degree of heat, greatly superior to that of our regions, and that it can only subsist near the tropics in Asia, Africa, and America. It has usually an hundred and sixty-six large plates, and an hundred and twenty-eight pairs of small plates, but is subject to considerable variation.

"The following simply unadorned description is given in the last edition of the System of Nature. The head is long and narrow, having a black bar across the eyes. The

The body is ſlender and whip like, of a golden green colour, the black ſkin appearing in ſeveral places between the ſcales, and the belly is extremely white. The tail is four cornered. The plates are ſubject to variety, and the following numbers have been obſerved on different ſpecimens *." Boiga.

163—150	161—141
165—152	163—152.
169—173	

Sp.

* This is added by the tranſlator. It may be here obſerved, once for all, that in giving the numbers of the plates in figures, as above, the firſt number is that of the large plates on the belly, and the ſecond that of the pairs of ſmaller plates on the under ſurface of the tail.—T.

Sp. LXV. *THE BROWNISH VIPER* *.

Brownish Viper.

IN the opinion of Linnaeus, this ſpecies has a conſiderable reſemblance to the boiga; but its colours are as dingy and as dully monotonous, as thoſe of the boiga are brilliant and varied. It is of a brown aſh colour, having an oblong brown ſpot behind each eye. It meaſures about four feet long; having for the moſt part an hundred and forty-nine large plates, and an hundred and ſeventeen pairs of ſmall ones; though in one ſpecimen there have been counted an hundred and fifty-five of the former, and an hundred and nine of the latter. It is an inhabitant of Aſia.

Sp.

* C. fuſcus. Syſt. nat. ed. Gm. i. 1108. G. 125. Muſ. Ad. Fr. i. 32. t. 17. f. 1. Weigel, Naturf. i. 33. n. 46. Seba, Muſ. ii. t. 54. f. 2. t. 71. f. 2. t. 72 f. 1. t. 87. f. 1. t. 91. f. 1.—La Sombre. Encyclop. Method.

Sp. LXVI. *THE SATURNINE VIPER*.

Saturnine Viper.

THIS ſpecies inhabits Aſia and South America, meaſuring about twenty-one inches in length, of which the tail is about a fifth part. The head is livid or lead colour, of an oblong ſhape, with a blunt ſquare muzzle, and having very large eyes. The body is livid or lead coloured, clouded with aſh colour. In one ſpecimen the belly had an hundred and forty-ſeven large plates, and the under ſurface of the tail an hundred and twenty pairs of ſmaller plates; while in another there were an hundred and fifty-ſeven of the former, and only an hundred and fourteen of the latter.

Sp.

* C. ſaturninus. Syſt. nat. ed. Gm. i. 1108. G. 125. Muſ Ad. Fr. i 32. t. 9. f 1. Weigel, Naturf. i. 34. n. 47.—Natrix ſaturnina. Laur. amph. 77. n. 154.—Le Saturnin. Encyclop. Method.

Sp. LXVII. *THE RIDGED VIPER* *.

Ridged Viper.

THIS ſpecies reſembles the laſt deſcribed in its various ſhades of colour, and approaches it very nearly in the numbers of its large and ſmall plates; having an hundred and fifty-ſeven of the former, and an hundred and fifteen of the latter †. But it differs from the ſaturnine viper, in having a ridge along the back. The head is blunt; the eyes large and prominent; the back ſcales are leaden coloured, with pale or whitiſh edges; the under ſurface is white; the tail round, with a pale line in the middle. It grows to more than ſix feet long, and is found in India and in South America.

Sp.

* C. carinatus. Syſt. nat. ed. Gm. i. 1109. G. 125. Muſ. Ad. Fr. 31. Boddaert, nov. act. Caeſ. vii. 19. n. 8? Weigel, Naturf. i. 35. n. 48.—Le Carené. Encyclop. Method.

† In two other ſpecimens quoted in the Syſtem of Nature the numbers are 167—125, and 193—90.—T.

Sp. LXVIII. *THE WHITE-LIP VIPER* *.

White-spot Viper.

LIKE the browniſh viper, this ſpecies reſembles the boiga a good deal, but likewiſe wants its brilliant colours. It is of a bluiſh aſh colour, with white ſcales on the lips. The ſcales are large, blunt, and few in number. The belly has an hundred and forty-ſeven large plates, and the tail an hundred and thirty-two. It inhabits India and South America.

Sp.

* C. exoletus. Syſt. nat. ed. Gm. i. 1110. G. 125. Muſ. Ad. Fr. i. 34. t. 10. f. 2.—Natrix exoleta. Laur. amph. 78. n. 160.—Le Decoloré. Encyclop. Method.

Sp. LXIX. *THE PELIAS**.

Pelias.

THIS ſpecies is deſcribed by Linnaeus, from a ſpecimen in the collection of Baron de Geer. It is of a black colour, having a brown ſpot on the top of the head behind the eyes: The under ſurface of the body is green; having a yellow longitudinal line on each ſide. In this diſtribution of colours, it differs from moſt ſerpents, which uſually have the moſt brilliant colours on their upper ſurfaces. It is ſaid to inhabit India and South America; and has an hundred and eighty-ſeven large plates, with an hundred and three pairs of ſmall plates.

Sp.

* C. Pelias. Syſt. nat. ed. Gm. i. 1111. G. 125. Muſ. de Geer.—Le Pelie. Encyclop. Method.

Sp. LXX. *THE THREAD VIPER**.

Thread Viper.

THIS is one of the moſt ſlender of ſerpents in proportion to its length, by which it can readily twiſt around the trunks and branches of trees. It is found both in the Eaſt and Weſt Indies, and on the warmer continental parts of America; where it is often ſeen in the date woods, ſuſpended in various directions from the branches, and gliding from tree to tree. It is ſometimes ſo cloſely fixed to the trees, as to reſemble in ſome meaſure a runner of ivy, or other climbing plant; from which circumſtance, a ſpecimen ſent to the royal cabinet from America was named the *ſerpent à liane*.

The top of the head is very thick in proportion to the body, and has nine large ſcales in four rows. The eyes are large.

* C. filiformis. Syſt. nat. ed. Gm. i. 1117. G. 125. Muſ. Ad. Fr. 36. t. 17. f. 2.—Natrix filiformis. Laur. amph. 78. n. 159.—Le Fil. Encyclop. Method.

Thread Viper.

The back ſcales are lozenge ſhaped, and have each a longitudinal ridge. The upper ſurface of the body is black, or livid of various ſhades; and the under ſurface is white or whitiſh. The ſpecimen from which our deſcription was taken meaſures twelve inches and a half long, of which the tail is four inches and a half. It has an hundred and ſixty-five large plates, and an hundred and fifty-five pairs of ſmall plates*. The jaws have no poiſon fangs.

β. The Streaked Thread Viper †.

Streaked Thread Viper.

LAURENTI deſcribes a viper, which he very properly conſiders as a variety of this ſpecies. It is of a livid colour on the upper ſurface of the body; having two brown ſtreaks

* In the Syſtem of Nature the pairs of ſmall plates are ſaid to be an hundred and fifty-eight.—T.

† Natrix filiformis lineata. Laur. amph. 78. n. 159. β, as quoted in the Syſtem of Nature.—T.

ſtreaks or lines, beginning, one on each ſide behind the eyes, and which, lower down, become broken into two rows of ſmall oblique ſpots. Streaked Thread Viper.

7. *The Brown Thread Viper.*

Brown Thread Viper.

We ought probably to refer to this ſpecies, as a variety, the ſerpent of Carolina, deſcribed by Cateſby*, under the name of Anguis flagelliformis, or coach-whip ſnake. It is of a brown colour, and is ſometimes found ſeveral feet long. It very much reſembles the thread viper, in the delicate ſlenderneſs of its form, and the ſwiftneſs of its motions; from which it has been compared to a whip, in the vulgar appellation uſed by the inhabitants of Carolina.

* See Cateſby, Nat. Hiſt. of Carolina, ii. pl. 54.

Sp. LXXI. *THE CINEREOUS VIPER**.

Cinereous Viper.

THIS ſpecies is deſcribed by Linnaeus, from a ſpecimen in the collection of Prince Adolphus. It is of an aſh colour on the upper ſurface, the edges of the ſcales on the tail being iron coloured. The belly is angular and white; having two hundred large plates; and the under ſurface of the tail has an hundred and thirty-ſeven pairs of ſmall plates. It is ſaid to inhabit India and South America.

Sp.

* C. cinereus. Syſt. nat. ed. Gm. i. 1118. G. 125. Muſ. Ad. Fr. i. 37.—Le Cendré. Encyclop. Method.

Sp. LXXII. *THE MUCOUS VIPER* *.

Mucous Viper.

THIS is one of a vaſt number of ſpecies which were firſt deſcribed by the great Linnaeus, from different cabinets, and is ſaid to inhabit India and South America. It is bluiſh, particularly the head, which is peculiarly angular, by the prominence of the two ſides of the jaws behind the eyes, which are large. The ſcales on the lips are marked with ſmall black ſtreaks. The upper ſurface of the body is clouded with oblique ſtreaks. It ſeldom exceeds a foot in length, and has two hundred large plates, and an hundred and forty pairs of ſmall plates †.

* C. mucoſus. Syſt. nat. ed. Gm. i. 1118. G. 125. Muſ. Ad. Fr. i. 37. t. 23. f. 1. Weigel. Naturf. i. 44. n. 65.—Natrix mucoſa. Laur. amph. 77. n. 156.—Le Muqueux, Encyclop. Method.

† In the Syſtem of Nature, a ſpecimen is quoted having two hundred and fifteen large plates, and only one hundred and twenty-one pairs of ſmall plates.—T.

Sp. LXXIII. *THE BLUISH VIPER* *.

Bluish Viper.

ALTHOUGH this viper has more plates than perhaps any other of the genus, it is by no means one of the largeſt. The ſize of the plates varies much in ſize, not only in reſpect to the different ſpecies, but according to age or ſex in different individuals of the ſame ſpecies. Hence two ſerpents may have the ſame number of plates, both large and ſmall, without being of the ſame length, or even having the ſame proportions between the total length, and that of the tail.

The whole upper ſurface of the body of this ſpecies is covered by plain ſcales, of a bluiſh colour, without ſpot. The head is of a pointed form, and a leaden colour. The

* C. caeruleſcens. Syſt. nat. ed. Gm. i. 1119. G. 125. Muſ. Ad. Fr. i. 37. t. 20. f. 2.—Natrix caeruleſcens. Laur. amph. 77. n. 157.—Le Bluatre. Encyclop. Method.

The belly has usually two hundred and fifteen large plates, and the under surface of the tail one hundred and seventy pairs of small plates. It is said to inhabit South America and India. Bluish Viper.

Sp. LXXIV. *THE HYDRUS* *.

WE are indebted to the celebrated Pallas for the description of this species, the habits of which may be said to make it a connecting link in the chain of beings between the serpents and fishes. According to that famous Russian naturalist, the hydrus is never found on land; hence we may suppose that it goes there but seldom, to propagate, to lay its eggs, or bring forth its young, or to seek for nourishment. Hydrus.

It is found in the Caspian and the rivers which disembogue into that inland sea; but does not willingly go far from land, as that

* C. Hydrus. Syst. nat. ed. Gm. i. 1103. Pallas. It. 3. 459. n. 18.—L'Hydre, in the original.

Hydrus. sea is sometimes very stormy, and it is not able to suffer the violence of the waves; and, being obliged frequently to breath the atmospheric air, it must swim mostly near the surface, and must often rest itself on the shores, or on sand banks above the water.

The hydrus is usually between two and three feet long. The head is small and not prominent at the sides; the palate has two rows of small sharp teeth, but no poison fangs in the upper jaw; the tongue is black and very long; the eyes are small and surrounded each by a yellow circle. The back is olive mixed with ash colour, having four rows of roundish black spots disposed in quincunx. On the neck, there is a blackish stripe on each side, which unite on the back of the head, having two oblong blackish spots placed within their angle. The belly is variegated with yellowish and blackish spots, and has an hundred and eighty large plates. The tail is mostly blackish, and is terminated by two very small sharp points, one over the other; having sixty-six pairs of

of ſmall plates on its under ſurface, beſides four ſmall plates on the anterior edge of the vent. Hydrus.

Sp. LXXV. *THE SHIELD VIPER* *.

THIS ſpecies, for a knowledge of which we are likewiſe indebted to Pallas, has conſiderable reſemblance, in its ſtructure and habits, with the natrix or collared viper. Like it and the hydrus, it is often for a great while in the water; but is likewiſe often found on ſhore, and even in dry and elevated places. It is found on the ſhores of the Jaik or Ural; a river of Aſiatic Ruſſia, which divides Tartary from Turkeſtan, and falls into the Caſpian. Shield Viper.

The ſhield viper is thus named by Pallas, from the great length of the large plates, or *ſhields*, on the belly, which cover almoſt two

* C. ſcutatus. Syſt. nat. ed. Gm. i. 1102. G. 125. Pall. it. i. 459. n. 17.—La Cuiraſſée, in the original French.

Shield Viper. two thirds of the circumference of the body. It is often four feet long; and has no poiſon fangs. The irides are brown. The upper ſurface of the body is black without ſpots: The under ſurface is likewiſe black, the belly having alternate almoſt ſquare ſpots on each ſide of pale yellow; and the under ſurface of the tail is ſimilarly ſpotted with white. The tail is ſlightly three cornered. An hundred and ninety large plates cover the belly, and fifty pairs of ſmall plates the under ſurface of the tail.

Sp. LXXVI. *THE DIONE**.

Dione. PALLAS, to whom we owe the deſcription of this ſpecies, ſeems to have conſecrated it to the goddeſs of beauty, by giving it one of the names of Venus. It is gentle in its manners, and remarkably elegant

* C. Dione. Syſt. nat. ed. Gm. i. 1106. G. 125. Pall. It. ii. 717.

legant in its slender figure and beautiful colours. Dione.

The head is small and somewhat four cornered, and usually ornamented with a kind of brown net work, on a bluish or white ground. The jaws have no poison fangs; and the palate has four rows of small sharp teeth. The upper surface of the body is pale grey or bluish, with three longitudinal streaks of very clear white, with alternate streaks of brown placed between them. The belly is whitish, with small brown spots, and frequently intermixed with small red dots.

The dione is often found three feet long, of which the tail measures about a sixth part, or half a foot. The top of the head is covered with large scales. The belly is covered by from an hundred and ninety, to two hundred and six, large plates; and the under surface of the tail has from fifty-eight to sixty-six pairs of small plates *. It is

* There is some confusion in these numbers: As quoted

Dione. is found on the ſalt deſerts in the neighbourhood of the Caſpian, and on the dry and ſaline hills near the river Irtiſh.

Sp. LXXVII. *THE CHAPLET VIPER* *.

Chaplet Viper. THIS ſpecies muſt not be confounded with one deſcribed under the ſame name by Cateſby, and which will be found in this publication under the appellation of the ſpotted viper.

The following deſcription is taken from a ſpecimen in the royal collection, which meaſures ſeventeen inches long, of which the tail is five inches and a half. There is no memorial of its native country, and we have not found it mentioned in the writings of other naturaliſts. The upper ſurface of the body is blue, with three narrow longitudinal

quoted in Gmelins edition of the Syſtem of Nature, they ſtand thus $\left.\begin{matrix}190—66\\206—58\end{matrix}\right\}$ 260.—T.

* Le Chapelet, in the original.

tudinal ſtripes. The middle ſtripe conſiſts of a ſeries of clearly defined oval white ſpots, alternated by black points, and edged with black. The two ſide ſtripes are uniformly white. On each ſide of the head there are three or four white ſpots, in a longitudinal row, about the ſize of the eyes, beginning juſt below them, and ſtreaching backwards. The top of the head has ſeveral bright blue ſpots, edged with black, and placed in very regular order. The under ſurface of the body is white, having a ſmall black ſpot at each end of each of the large plates, which form two longitudinal rows of black dots. Upon the whole, the ornaments of the chaplet viper are placed in ſuch regular order, as to ſeem more the work of art than of nature. The body is very ſlender and elegantly formed. The top of the head is flatted, and has nine large ſcales in four rows. It has no poiſon fangs. The back ſcales are lozenge ſhaped, and plain. The belly has an hundred

Chaplet Viper.

and

Chaplet Viper. and sixty-six large plates, and an hundred and three pairs of small plates.

Sp. LXXVIII. *THE CENCHRUS* *.

Cenchrus. THIS species was sent from Asia to the royal cabinet, under the name here adopted as its trivial. Our specimen is two feet long, of which the tail is three inches and a half. The belly has an hundred and fifty-three large plates, and the tail forty-seven pairs of small plates. It has no poison fangs. The top of the head has nine large scales in four rows. The back scales are small, plain, and hexagonal. The upper surface of the body is marbled with brown and white; having narrow irregular white transverse bars, on a brown ground. And the under surface is whitish, variegated with brown.

Sp.

* This must not be confounded with the Boa Cenchris of the Systema Natura, described in this work by the name of the Yellow Boa.—T.

Sp. LXXIX. *THE ASIATIC VIPER.*

Asiatic Viper.

UNDER this name we ſhall deſcribe a ſpecimen in the royal cabinet, which was ſent from India, probably from the iſle of Ceylon. It appears, from ſome written memoranda, which accompanied the ſpecimen, that it gets the name of Malpolon in ſome parts of the Eaſt; which we have already appropriated to the ſixtieth ſpecies of this work, following M. Daubenton in the Encyclopedie Methodique. The top of the head has nine large ſcales in four rows. The jaws have no poiſon fangs. Our ſpecimen meaſures twelve inches in length, of which the tail is two inches and a quarter. The colours are much faded, from the action of the ſpirits in which it is preſerved; but the rhomboid plain ſcales on the back are evidently edged with whitiſh; and there are ſeveral narrow longitudinal

Aſiatic Viper.

longitudinal ſtreaks along the back. The belly has an hundred and eighty-ſeven large plates; and the under ſurface of the tail ſeventy-ſix pairs of ſmall plates.

Sp. LXXX. *THE SYMETRIC VIPER.*

Symetric Viper.

FROM the regular arrangement of its colours, we ſhall deſcribe, by this name, a ſpecimen which was tranſmitted to the royal cabinet from Ceylon. The upper ſurface of the body is brown, having a row of blackiſh ſpots along about a third of the length of the back on each ſide. The belly is white, with tranſverſe brown bars and half bars, in very regular order, and having an hundred and forty-two large plates. The under ſurface of the tail is white, with twenty-ſix pairs of ſmall plates. This viper has no poiſon fangs. The head has nine large ſcales in four rows. The back ſcales are oval and plain. The whole length of our ſpecimen is ſeventeen inches and a half;

half, of which the tail is three inches and a quarter. Symetrici

Sp. LXXXI. *THE OULARSAWA* *.

THIS very large and beautiful ſerpent inhabits the iſle of Java, where it is known by the natives under the name which is here uſed as its trivial, and which ſignifies rice-field ſerpent, from its frequenting ſuch ſituations, where it is often found nine feet long. Such individuals of this ſpecies as frequent thick woods in elevated places, often grow to a much greater length; in ſo much that they are ſaid to be as long and large as trees. When of this magnitude, although entirely deſtitute of venom, they are dangerous on account of their ſtrength. They not only prey on birds and ſmall quadrupeds, but animals of Oularſawa.

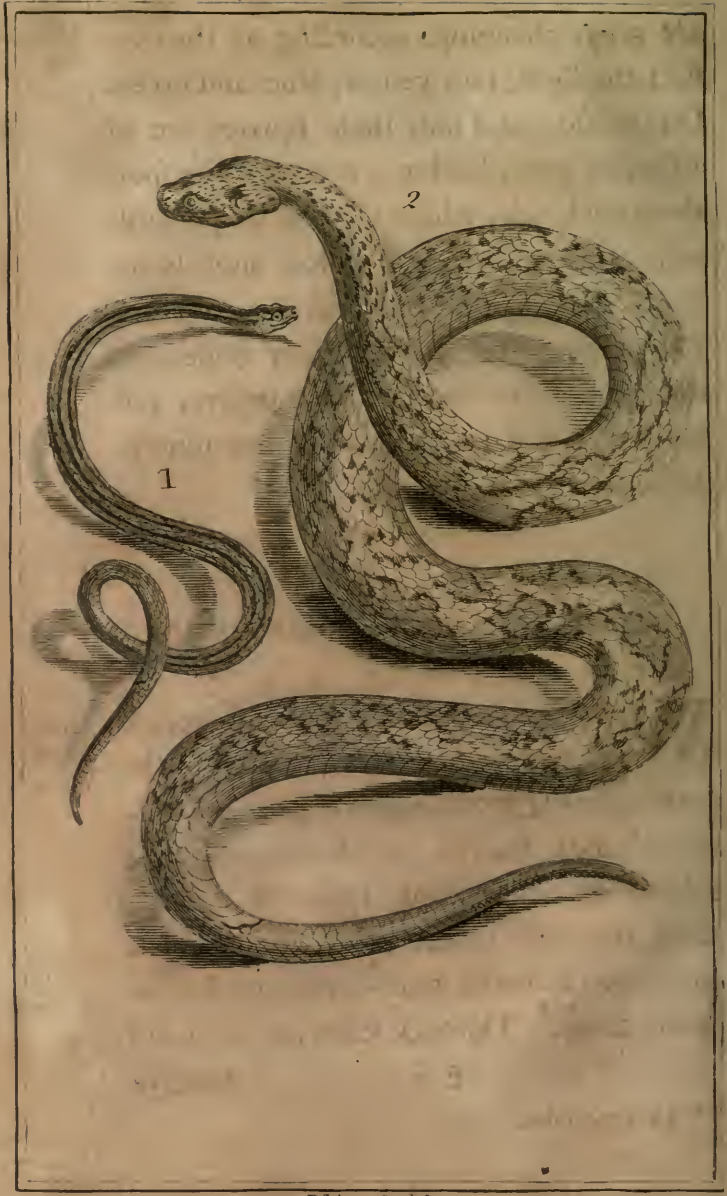
* La Jaune-et-blue, or yellow-and-blue viper.—Grand Couleuvre de Java, Wurmb, Mem. de la Société de Batavia, anno 1787.

Oularfa-wa.

conſiderable ſize are frequently ſeized by them.

The head is large and flat; and, by the deſcription given in the Memoirs of the Batavia Society, ſeems covered with nine large ſcales in four rows. It has no poiſon fangs; but the jaws are furniſhed with two rows of hooked ſharp teeth, of which the largeſt are neareſt the muzzle. The irides are yellow. The top of the head is grey with a blue tinge, having two deep blue ſtreaks beginning behind the eyes, which extend along the top of the neck, and unite in a curve about an inch behind the head. A third blue ſtreak begins at the muzzle, and extends along the top of the head dividing in two at the hind head, and including in its fork a yellow ſpot which is dotted with blue.

The upper part of the body is beautifully ornamented by a net work of bright blue ſtreaks, which croſs each other, and are edged with golden yellow. The ſquares, formed by theſe croſs ſtripes on the back, are



D. Lizars. Sculpt

1. Three-streak Viper, Sp. 82.—2. Daboy, Sp. 83.

are grey, changing, according as they reflect the light, into yellow, blue, and green. On the sides and tail, these squares are of a simpler grey, having a row of white spots along each side, where the blue stripes cross each other. Blue and yellow most beautifully contrasted are the prevailing colours. The large plates on the belly sometimes amount to three hundred and twelve, and the under surface of the tail has ninety-three pairs of small plates. Oularsawa.

SP. LXXXII. *THE THREE-STREAK VIPER* *.

WE have named this African species, of which there is a specimen in the royal cabinet, from its having three longitudinal dark streaks, which extend, on a reddish brown ground, from the muzzle along the back to the tail. The head has nine large scales in four rows, and has no poison fangs. The back scales are plain and Three-streak Viper.

* La Trois-raies.

Three-streak Viper.

lozenge ſhaped. Our ſpecimen is ſeventeen inches and a half long, of which the tail is two inches and two thirds. The belly has an hundred and ſixty-nine plates, and the tail thirty-four pairs.

Sp. LXXXIII. *THE DABOY* *.

Daboy.

THIS ſpecies abounds in the kingdom of Juida, on the weſt coaſt of Africa, where it is worſhipped as a deity, having a regular eſtabliſhment of temples, prieſts, and altars. It does not appear that the influence of terror has humbled the negroes before this ſingular divinity; as the daboy is entirely deſtitute of venom, and is by no means remarkable for ſtrength. The hiſtory of this ſtrange worſhip may be taken, in ſome meaſure, as the extreme caſe of groſsly ignorant, yet ſufficiently cunning, prieſtcraft operating, for intereſted purpoſes, to

* Le ſerpent idole. Lilenburg, Cabinet de Dreſde, 1755.—Le Daboie.

to deceive the ſtupid ſuperſtition of uncultivated reaſon. Daboy.

According to ſeveral navigators, who have viſited Africa, the daboy is remarkable for the brilliance of its ſcales and the brightneſs of its colours. The upper part of the body is whitiſh, and covered with large ſpots, of reddiſh brown of different ſhades, edged with black or brown, which are ranged in three rows from the head to the beginning of the tail. Boſman ſays that it is ſtreaked with white, yellow, and brown. Des Marchais deſcribes its back as being agreeably variegated, on a whitiſh ground, with ſpots or ſtreaks of yellow, brown, and blue. This is tollerably conſiſtent with the account of Boſman; and may only be conſidered as a looſe deſcription of the ſame ſhades and diſtribution of colours which we have pointed out.

The head and back of this ſpecies are covered with ſimilar oval ſcales, each of which has a longitudinal ridge. The jaws have no poiſon fangs. The ſpecimen in

Daboy. the royal cabinet, from which our deſcription is taken, meaſures three feet five inches long, of which the tail is five inches and three quarters. The belly has an hundred and ſixty-nine large plates, and the under ſurface of the tail forty-ſix pairs of ſmall plates. It has been extremely difficult to procure ſpecimens of this ſerpent to be brought to Europe, as the negro kings have forbidden their ſubjects, on pain of death, either to carry away the animal or its ſkin.

The habitudes of the daboy are very gentle: The more ſo, no doubt, as it is never forced to defend itſelf; having few enemies in a country where it is ſerved from religious veneration, and from which every thing that can hurt it is carefully removed. Even very uſeful animals, that would prey upon this ſerpent, are carefully removed or extirpated. Hogs, particularly, which feed on ſeveral kinds of reptiles, and which, according to ſeveral travellers, can ſafely attack the moſt venomous ſerpents, are proſcribed in Juida as a public enemy; as, whatever

whatever advantages the inhabitants might derive from breeding that useful quadruped, it is here regarded with horrour, as the destroyer of their god*. Daboy.

Far from endeavouring in any respect to injure mankind, the daboy is so familiar that it readily allows itself to be taken and handled. It may be said to employ its whole powers in serving the natives who adore it; as it attacks no serpents except such as are venomous, and which are very numerous in Juida; and it destroys vast numbers of insects and worms and caterpillars, which often lay waste the country. Hence probably has originated the veneration of the inhabitants, who have used every means to multiply, or at least to preserve, so useful an animal, which they consider

* A comparative view of the various animal and vegetable *Gods* of the several *nomes* of ancient Egypt, with the similar *Fetiches* of the different districts of modern Africa, would form a very curious subject of investigation, but which the limits of a note will not admit of pursuing.—T.

Daboy. as the preſerver of their country, ſo frequently ravaged by hoſts of deſtructive inſects, and ſo much infeſted by venomous ſerpents. On this foundation of utility and gratitude, time, ignorance, and deception have erected the ſuperſtructure of ſuperſtitious adoration.

Des Marchais* gives the following hiſtory of the introduction of this deity into the ſacred callender of Juida. "The army of Juida being on the point of giving battle to that of Ardra, a large ſerpent crawled from the latter army, and took refuge with that of Juida. It was ſo tame and gentle, that every one was deſirous of careſſing it. The chief prieſt of Juida, taking it in his arms, held it up to view of the army as a prodigy. All the negroes immediately fell down and worſhipped their new deity; and then fell upon their enemies, and gained a complete victory. This memorable ſucceſs was univerſally attributed to the influence of the ſerpent, which was

* Hiſt. gen. des Voyages, xiv. p. 369.

was carried home with every demonſtration of reſpect. A temple was built for his worſhip, and a fund eſtabliſhed for his ſubſiſtence and that of his prieſts; and in a ſhort time the new Fetiche gained the preeminence over all the old ones, and the followers of the new worſhip rapidly increaſed, in proportion to the ſuppoſed favours that were derived from cultivating its protection. Daboy.

"The three ancient Fetiches, or deities, of the country, had each their ſeparate departments; prayers and offerings were addreſſed to the ſea, to obtain a ſucceſsful fiſhery; to the trees, for the recovery of health; but the new ſerpent-god preſides over all things, and trade, war, agriculture, health, barrenneſs, &c. are all under his juriſdiction. The firſt temple, which was built in honour of the new Fetiche, was ſoon conſidered as too ſmall, and a new temple was built, provided with ſpacious courts and numerous and ample apartments; and a ſupreme pontif, with a retinue of prieſts, were

Daboy. were appointed to serve the god and direct the conduct of his worship. Every year, some of the finest young girls of the country are consecrated to the service of the serpent; and the present race of negroes believe implicitly, that the serpent which now inhabits the temple is the same which was brought from Ardra by their ancestors, after enabling them to gain a signal victory."

The worship of such animals as inspire terror, has too frequently been very sanguinary, and even human victims have often bled upon their altars. But this serpent god has obtained sacrifices of a gentler kind, which however the priests constantly exact with the most despotic authority. No human victims are put to death in the temple of the daboy; but the most beautiful young girls of the kingdom are delivered over to its ministring priests. In as magnificent a temple as the rude arts of the negroes are capable of constructing, the richest productions of the country are offered to the deity; jewels, money, silk, and cotton stuffs,

all

all the delicacies which can be procured, even whole herds of cattle, are conſtantly brought to the holy edifice. Daboy.

Beſides all theſe voluntary gifts, the prieſts are poſſeſſed of extenſive eſtates, with a great number of ſlaves, from which they derive a very conſiderable revenue: And that nothing may be wanting to their pleaſures, they every year, at a ſtated time, make the prieſteſſes go about the city of Juida and its neighbouring villages, armed with clubs and aſſiſted by the prieſts, in ſearch of the moſt beautiful young negro girls, whom they forcibly carry to the temple; and ſhould any one dare to reſiſt, they are put to death without mercy. Indeed, ſuch is the credulous ſuperſtition of theſe ignorant people, that they conſider this ſelection as a ſingular honour; believing that theſe devoted negreſſes are to be delivered up to the love of the protecting ſerpent, and they receive the ſummons as a ſignal mark of the divine favour.

At

Daboy. At first, these girls are taught to sing certain hymns, and to perform mystic dances, in honour of the serpent. Some time before they are to be finally initiated in the sacred mysteries, they have to undergo a painful and barbarous ceremony; for every where cruelty is engrafted on superstition. On every part of their skin, figures of flowers and animals, especially of serpents, are traced out with sharp pointed instruments, and indelibly fixed by means of coloured powders rubbed into the recent punctures. When the skin is healed after this operation, it acquires the appearance of fine black flowered satin; and insures ever after, to those who are thus ornamented, the superstitious veneration of the negroes.

Being fully instructed in all the barbarous mysteries, the time arrives for introducing the selected favourite to the serpent-god. With new ceremonies, she is made to descend into a dark cavern, while the priestesses, and the other young girls who wait their turn of divine favour, celebrate the

the happy deſtiny of the victim with ſongs and dances, accompanied by the ſound of ſeveral noiſy inſtruments. On returning from the holy cavern, the now completely initiated is ſaluted by the title of *Wife* of the ſerpent, which ſhe carries ever after. She is however permitted to marry; and her future huſband is obliged to treat her with the moſt humble ſubmiſſion and reſpect. Should any one of theſe wives of the ſerpent dare to reveal the ſacred myſteries of the cavern, or rather ſhould ſhe betray the ſecret laſcivious practices of the prieſts, ſhe is certain to be carried off and put to death; and it is univerſally credited, on ſuch occaſions, that the great ſerpent comes in perſon to exerciſe vengeance on his impious wife. Daboy.

But let us ſtop here: The hiſtory of ſuperſtition is not the hiſtory of nature; yet is too intimately connected with its wonderful phenomena to be entirely left out from the hiſtory of thoſe animals which

are

Daboy. are made the objects of superstitious veneration.

Sp. LXXXIV. *THE SITULA**.

Situla. THIS serpent is found in Egypt, where it was first observed by Hasselquist. It is of a grey colour, having a longitudinal stripe on the back, edged on each side with black. The belly has two hundred and thirty-six large plates, and the under surface of the tail forty-five pairs of small plates.

Sp.

* C. Situla. Syst. nat. ed. Gm. i. 1110. G. 125. Mus. Ad. Fr. ii. 44.—Le Situle. Encyclop. Method.

Sp. LXXXV. *THE TYRIE**.

THE land of Egypt annually inundated by the Nile, and heated by an almoſt vertical ſun, is peculiarly favourable to the nature of ſerpents, and therefore is very abundant in producing and nouriſhing a number of different ſpecies of theſe reptiles. The preſent ſpecies was firſt noticed by Haſſelquiſt in that country. It is of a whitiſh colour, with three longitudinal rows of brown rhombic ſpots; having two hundred and ten large plates, and eighty-three pairs of ſmall plates. Tyrie.

We ought probably to refer to this ſpecies, the one ſeen in Egypt by Forſkal, called Tæ Æben by the Arabs, and deſcribed by him under the name of ſpotted viper †.

Sp.

* C. Tyria. Syſt. nat. ed. Gm. i. 1111. G. 125. Muſ. Ad. Fr. ii. 45.—Le Tyrie. Encyclop. Method.

† Col. guttatus. Forſkal, Faun. Arab. Amph. 7.

Sp. LXXXVI. *THE ARGUS**.

Argus.

THE argus is remarkably diſtinguiſhed by two eminences or gibboſities on the back of its head. The ſcales of its back are exceedingly ſmooth, having each a white ſpot. Beſides theſe, there are ſeveral rows of round white ſpots, edged with red, and having a red dot in the center of each, giving them a reſemblance to eyes, from which circumſtance the trivial name is derived. The number of plates, both large and ſmall, in the argus is unknown.

Sp.

* C. Argus. Syſt. nat. ed. Gm. p. 1119. G. 125. Seba, Muſ. ii. t. 103. f. 1.—Natrix Argus. Laurent. amph. 78. n. 157.—Argus. Encyclop. Method.

Sp. LXXXVII. *THE PETOLA**.

THIS ſerpent is found in the warmeſt parts of Africa. The upper parts of its body are uſually of a livid blue colour, with tranſverſe reddiſh bars. The under ſurface of the body is white mixed with yellow, and is ſometimes barred acroſs with reddiſh or bright brown. The top of the head has nine large bright ſcales in four rows. The back ſcales are oval and plain. The muzzle is pointed, and the jaws have no poiſon fangs. It has uſually two hundred and nine large plates, and ninety pairs of ſmall plates †. Petola.

* C. Pethola. Syſt. nat. ed. Gm. i. 1112. G. 125. Amoen. ac. i. 306. n. 36. & 119. n. 8. & 495. n. 13. Gron. Muſ. ii. 57. n. 13. Sundm. Surin. Grill. n. 13. Boddaert, nov. act. Caeſ. vii. 23. n. 26. Seba, Muſ. i. 819. t. 54. f. 4.—Coronella Petola. Laur. amph. 87. n. 189.—Le Petole. Encyclop. Method.

† In three other ſpecimens, quoted in the Syſtem of Nature, the numbers are 207—103, 208—90, and 207—85.—T.

Petola. "In Gmelins edition of the Syſtem of Nature, the following are enumerated, as varieties of this ſpecies*.

β. *White Petola* †. Of a white colour; the fore part of the back having roundiſh ſpots, becoming gradually rhombic towards the tail, and all edged with reddiſh.

γ. *Eyed Petola* ‡. Of a bluiſh colour, with four longitudinal rows of black ſpots, having blue dots in the middle.

δ. *Barred Petola* §. Bluiſh white, with blackiſh brown tranſverſe bars, which are interrupted by two longitudinal white ſtripes.

ε. *Flat-noſed Petola* ‖. Of a browniſh colour, with a few darker tranſverſe bars; the muzzle being broad and flattened.

ζ. *Broad-noſed Petola* ¶. Having a broad noſe,

* Added by the tranſlator.

† Coronella africana. Laur. amph. 87. n. 190.

‡ Coronella ocellata. Laur. amph. 87. n. 179. Seba, Muſ. ii. 82. f. 2.

§ Coronella faſciata. Laur. amph. 86. n. 180.

‖ Coronella depreſſiroſtra. Laur. amph. 86. n. 184.

¶ Coronella latiroſtra. Laur. amph. 86. n. 184. β.

nose, and the bars towards the belly becoming yellowish and running together. Petola.

η. *Spotted Petola**. Brownish white, with a row of pale brown spots, of which two on the hind head are long, and those on the back eliptical.

ϑ. *Striped Petola* †. Having a brown stripe along the middle of the back; the belly and sides browniſh white, the sides near the back being pale brown.

ι. *Circled Petola* ‡. Having entire circular brown bars, which run obliquely together on the belly."

* Coronella ceraſtoides. Laur. amph. 86. n. 185.

† Coronella taeniata. Laur. amph. 86. n. 186.

‡ Coronella anguiformis. Laur. amph. 85. n. 182.

Sp. LXXXVIII. *THE DOMESTIC VIPER* *.

Domeſtic Viper.

THIS ſpecies is found in Barbary, where it is ſo tame as to frequent the houſes of the natives, feeding on mice and inſects. Its colour is often pale grey, with brown ſpots; having a brown bar between the eyes, which divides into two, or two dark brown or black ſpots. It has two hundred and forty-five large plates, and ninety-four pairs of ſmall plates. In other reſpects, it has conſiderable reſemblance to the horſe-ſhoe viper, the 128th ſpecies of this work.

Sp.

* C. domeſticus. Syſt. nat. ed. Gm. i. 1118. G. 125. —Le ſerpent domeſtique. Encyclop. Method.

Sp. LXXXIX. *THE HADJE* *.

ACCORDING to Haſſelquiſt, this Egyptian viper grows to a very conſiderable ſize. Half of the ſcales are black, and the other half white, forming oblique bars. When irritated and going to bite, it erects and extends its neck. Hadje.

As, according to Linnaeus, this ſerpent is not venomous, it muſt not be confounded with another Egyptian viper poſſeſſing very active venom, which gets the ſame name from the country people, as mentioned by Forſkal †. The belly has two hun-

* C. Haje. Syſt. nat. ed. Gm. i. 1117. G. 125. Muſ. Ad. Fr. ii. 46. Haſſelquiſt, it. 317. n. 62.—Haje-Naſcher. Forſkal, Faun. arab. 18. n. 8.—Haje. Encyclop. Method.

† In Gmelins edition of the Syſtem of Nature, Forſkals Hadje is quoted as a ſynonime; and it is added that the Egyptian jugglers draw the poiſon fangs of the Hadje, to render them innocuous, before ſhewing tricks with them.—T.

Hadje. dred and seven large plates, and the under surface of the tail one hundred and nine pairs of small plates*.

Sp. XC. *THE MOORISH VIPER* †.

Moorish Viper. THIS species was sent, by M. Brander, from the neighbourhood of Algiers, to Linnaeus; and gets its trivial name from that circumstance, and from its colour. The upper part of the body is brown, with two longitudinal stripes of black; from which several black cross bars extend to the belly, which is black. The head has nine large scales in four rows, and has no poison fangs. The back scales are oval, and have each a small ridge. On the belly there are usually

* Another specimen is quoted in the System of Nature having two hundred and six plates on the belly, and only sixty pairs on the tail.—T.

† C. maurus. Syst. nat. ed. Gm. i. 1098. G. 125. Brander.—Le Maure. Encyclop. Method.

ly an hundred and fifty-two large plates, and sixty-six pairs of small plates under the tail. Moorish Viper.

Sp. XCI. *THE SIBON**.

THIS species, so named by the Hottentots, is found in several parts of Africa. The upper parts of the body are of a rusty brown colour, mixed with white; and the under parts are white, spotted with brown. The head is white. The back scales are rhombic. The tail is short and slender. The belly has an hundred and eighty large plates, and the tail eighty-four pairs of small plates. Sibon.

* C. Sibon. Syst. nat. ed. Gm. i. 1107. G. 125. Amoen. ac. i. 304. n. 32. Laur. amph. 95. n. 220. Seba, Mus. i. t. 14. f. 4. Encyclop. Method.

Sp. XCII. *THE DHARA**.

Dhara. IN the fertile district of Yemen, in Arabia Felix, this species was found by Forskal. The head is covered by nine large plates in four rows, having a round muzzle, and no poison fangs. The body is slender, with very fine proportions, and its manners are gentle and innocent. The upper parts of the body are grey or ash coloured, with a coppery tinge, the edges of all the scales being whitish. The under surface of the body is white. The individual examined by Forskal was about the thickness of the little finger, and below two feet in length; but he suspected it had lost a part of its tail. The belly had two hundred and thirty-five large plates, and the under surface of the tail forty-eight pairs of small plates.

Sp.

* C. Dhara. Syst. nat. ed. Gm. i. 1111. G. 125. Forskal, Faun. arab. 14. n. 9.

Sp. XCIII. *THE SCHOKARI* *.

Schokari.

IN the ſame country with the former ſpecies, the ſchokari was found by Forſkal, frequenting woods in elevated ſituations. Its bite is not in any reſpect dangerous, and our author found no poiſon fangs in its jaws. It is very ſlender, and ſeldom exceeds between one and two feet long, of which the tail is five or ſix inches. The head has nine large ſcales in four rows. The upper parts of the body are aſhen brown, having two narrow white ſtripes on each ſide, one of which has black edges. In larger individuals, there is a longitudinal row of white points on the back. The under parts of the body are whitiſh, with brown dots, and yellowiſh about the throat. The belly has an hundred and eighty-three large plates, and there are an hundred and forty

* C. Schokari. Syſt. nat. ed. Gm. i. 1115. G. 125. Forſk. Faun. arab. 14. n. 10.

Schokari. forty-four pairs of small plates beneath the tail *.

Sp. XCIV. *THE BAETAEN* †.

Baetaen. WE are indebted to Forskal for the only notice of this species, which is likewise found in Arabia. It is spotted with black and white. Its length is about a foot, and its circumference about two inches. It is oviparous, yet Forskal says that its bite is followed by death almost instantaneously.

Sp.

* In the System of Nature, a specimen is quoted having the following numbers, 180—114.—T.

† C. Baetaen. Syst. nat. ed. Gm. i. 1115. G. 125. Forsk. Faun. Arab. 15. n. 11.

SP. XCV. *THE HOELLEIK* *.

THIS ſpecies is entirely of a red colour, and is about a foot long. Its bite is attended with a painful inflammatory ſwelling; and the Arabs allege that its breath cauſes meat to putrify. It was found in Yemen by Forſkal. Hoelleik.

SP. XCVI. *THE HANNASCH* †.

THIS ſpecies was found by Forſkal, in the ſame country with the former. It is entirely black; about ſixteen inches long, and the thickneſs of a finger. It is oviparous, and its bite occaſions a painful ſwelling, though not dangerous. The Arabs Hannaſch.

are

* C. Hoelleik. Syſt. nat. ed. Gm. i. 1115. G. 125. Forſk. Faun. Arab. 15. n. 12.

† C. Hannaſch. Syſt. nat. ed. Gm. i. 1116. G. 125. Forſk. Faun. Arab. 15. n. 13.

Hannaſch. are in uſe to ſtop the communication of the venom of this and other ſpecies of ſerpents by ligatures; they afterwards ſuck the wound, and apply certain herbs, which they reckon antedotes. They farther pretend, that the hannaſch ſometimes eats into the bodies of their camels, by a hole at one ſide, and again eats out by a hole on the other ſide; and that it is neceſſary to ſeer the wounds with a hot iron, otherwiſe the camel would die.

Theſe laſt three ſpecies are by no means deſcribed by Forſkal with ſufficient preciſion. We therefore recommend to future travellers into Arabia, to ſupply the want, and to examine into the opinion of the Arabs reſpecting the hannaſch; as there are few fables, however abſurd, but are founded on ſome truth.

Sp.

Sp. XCVII. *THE RED-THROATED VIPER* *.

THIS ſpecies was ſeen in Egypt by Haſſelquiſt, and is introduced by Linnaeus from a ſpecimen in the collection of Prince Adolphus. It is entirely black, except the throat which is blood red. The belly has an hundred and ninety-five large plates, and the tail an hundred and two pairs of ſmall plates. Red-throated Viper.

Sp.

* C. jugularis. Syſt. nat. ed. Gm. i. 1112. G. 125. Muſ. Ad. Fr. ii. 45.—Le Rouge-gorge. Encyclop. Method.

Sp. XCVIII. *THE AZURE VIPER* *.

Azure Viper.

THIS viper is of a very rich blue colour, ſometimes dark on the back, and very pale or whitiſh on the belly and under ſurface of the tail. The head has nine large plates in four rows, and the jaws have no poiſon fangs. The back ſcales are oval and plain. The ſpecimen in the royal collection, which came from Cape Vert on the coaſt of Africa, is two feet long, of which the tail is five inches and a quarter. The belly has an hundred and ſeventy-one † large plates, and the under ſurface of the tail ſixty-four pairs of ſmall plates.

Sp.

* L'Azurée, of the original.

† The ſyſtematic table gives only one hundred and ſeventy.—T.

SP. XCIX. *THE NASAL VIPER**.

THIS viper is readily diſtinguiſhable, from all the other ſpecies hitherto known, by the peculiar length of its muzzle; from which circumſtance its trivial name is derived. The top of the head has nine large ſcales in four rows. The upper jaw is much elongated, into a four ſided projecting ſnout; having a ſmall horny prominence of one piece at the extremity, which ſeems plaited. Cateſby deſcribes this ſnout as a kind of cock-noſe; from which probably Linnaeus aſſumed the trivial, mycterizans, which ſignifies mocking or contemptuous. The lower jaw is broader and

Naſal Viper.

* C. mycterizans. Syſt. nat. ed. Gm. i. 1118. G. 125. Muſ. Ad. Fr. i. 28. t. 5. f. 1. & t. 19. f. 2. Gron. Muſ. ii. 59. n. 19. Zooph. 21. n. 202. Boddaert, nov. act. Caeſ. vii. 20. n. 11.—Natrix mycterizans. Laur amph. 79. n. 162.—Le Nez-retrouſſé. Encyclop. Method.—La Naſique, in the original.

Naſal Viper.

and much ſhorter than the upper, and is rounded at the end. The eyes are large and round. Both jaws have a number of ſtrong ſharp teeth; but, according to Gronovius, there are no poiſon fangs, and Cateſby ſays that it is not dangerous. Yet Linnaeus aſſerts that it is venomous. The under ſurface of the head is whitiſh; and all the other parts of the body are uſually greeniſh, having four narrow whitiſh lines on each ſide extending to the end of the tail, and two ſuch on the belly; though its colours ſeem ſubject to conſiderable variation.

The back ſcales are rhombic and plain. The body is ſlender in proportion to its length, and the tail is leſs than half the length of the body. The ſpecimen in the royal cabinet is four feet nine inches in length, of which the tail is one foot eleven inches, and in ſome parts of the body is only about half an inch in diameter. It has an hundred and ſeventy-three large plates, and

and an hundred and fifty-ſeven pairs of ſmall plates *. Naſal Viper.

The naſal viper has been ſaid to feed on rats: But, although its throat and ſtomach are certainly ſuſceptible of conſiderable diſtention, like thoſe of other ſerpents, we can hardly conceive it capable of ſwallowing the ſmalleſt rats, or even mice. It more probably feeds on beetles and other inſects; which indeed Cateſby informs us conſtitute its principal prey, and for taking which it is well fitted, as it chiefly frequents trees, concealed under their leaves, and twiſted round their branches, among which it can glide with great quickneſs. It never attacks mankind. The naſal viper is found in Ceylon, Guinea, Carolina, and other warm countries.

" In the laſt edition of the Syſtema Naturae, the two following are conſidered by

* In the Syſtema Naturae, two ſets of numbers are given different from the above: In one there are 192—167, and in the other 187—148.—T.

Nasal Viper.

Gmelin as distinct varieties, though quoted by our author as synonimes.—T."

β. Natrix flagelliformis, or whip-like nasal viper. Laur. amph. 79. n. 163.—Serpens murina, or mouse-eating serpent, Seba, mus. ii. t. 23. f. 2.

γ. Natrix majus virescente, or green nasal viper.—Anguis viridis, or green snake, Catesby, Carol. ii. t. 47.

Sp. C. *THE THICK-HEADED VIPER* *.

Thick-headed Viper.

WE give this name to a non-descript specimen in the royal cabinet, on account of its head being considerably thicker than the fore-part of its body. The head has nine large scales in four rows; and the jaws have no poison fangs. The back scales are oval and plain. The upper surface of the body is dark coloured, with transverse bars of a lighter colour; but our specimen is too much injured, by the spirits

* La Grosse-tête, of the original French.

rits in which it is kept, to enable us to be more particular in the description of its colours. It is two feet five inches and a half long, of which the tail is five inches and a quarter, and ends in a very sharp point. It has an hundred and ninety-three * large plates, and seventy-seven pairs of small plates. It inhabits America. Thick-headed Viper.

Sp. CI. *THE SWIFT VIPER* †.

A Specimen of this species was sent to the royal cabinet, from Martinique, by the late M. de Chauvalon. It is extremely timid and perfectly harmless; and either conceals itself from mankind with great care, or flies with such swiftness as to have acquired the trivial name here adopted. The upper parts of the body are Swift Viper.

* In the systematic catalogue, the large plates are said to be an hundred and ninety-six.—T.

† La Coureſſe, in the original French.

Swift Viper.

greeniſh, with two longitudinal rows of longiſh white ſpots. The ſides and under ſurface of the body are whitiſh. The top of the head has nine large ſcales in four rows. The jaws have no poiſon fangs. The back ſcales are oval and plain. Our ſpecimen is two feet ſeven inches and a half long, of which the tail is nine inches and a half. The belly has an hundred and eighty-five large plates, and the under ſurface of the tail an hundred and five pairs of ſmall plates.

Sp. CII. *THE SPOTTED VIPER* *.

Spotted Viper.

THIS harmleſs ſpecies is very beautiful, and is moſtly found in holes under ground, where it ſearches for worms and inſects. Cateſby and Garden, who have both obſerved it in Carolina, ſay that it is often

* C. guttatus. Syſt. nat. ed. Gm. i. 1110. G. 125. Garden. Cateſby, Carol. ii. t. 60?—Le Moucheté. Encyclop. Method.

Spotted Viper.

often found in holes about the roots of potatoes, in the months of September and October, at the time of taking up that vegetable. The upper part of the body is of a livid grey, with large bright red ſpots longitudinally diſpoſed; having a row of yellow ſpots on each ſide oppoſite the intervals of the red ſpots; and frequently a black longitudinal ſtripe on each ſide. The under ſurface of the body has ſquare black ſpots, placed alternately on each ſide. It has uſually two hundred and twenty-ſeven large plates, and ſixty pairs of ſmall plates*. The body is ſlender, and the tail about a ſixth part of the total length.

* In the Syſtem of Nature, the large plates are ſaid to vary from 223 to 230; and the back is deſcribed as having black ſpots as well as red ones. The individual from Cateſby has a mark of doubt whether it actually belongs to this ſpecies.—T.

Sp. CIII. *THE SNUBBY VIPER* *.

Snubby Viper.

A Specimen of this ſpecies was ſent, by Dr Garden from Carolina, to Linnaeus. The head is round, with a prominence on the top, and having a ſhort ſnubby muzzle, from which the trivial name is derived. It is marked by a curved black bar between the eyes, and a white croſs on the top of the head, having a black dot in the middle. The upper part of the body is variegated with black and white, having tranſverſe white bars. The under ſurface is black. The belly has an hundred and twenty-four plates, and the tail forty-ſix pairs.

Sp.

* C. ſimus. Syſt. Nat. ed. Gm. i. 1086. G. 125. Garden.—Le Camus. Encyclop. Method.

Sp. CIV. *THE STRIATED VIPER* *.

Striated Viper.

DR GARDEN communicated ſpecimens of this ſpecies to Linnaeus from Carolina. The upper part of the body is brown and ſtriated, probably produced by the longitudinal ridges of the back ſcales. The under ſurface is pale. The head is ſmooth. The belly has uſually an hundred and twenty-ſix plates, and the tail forty-five pairs. One of the ſpecimens, quoted in the Syſtem of Nature, has an hundred and thirty of the former, and twenty-five only of the latter.

Perhaps we might refer to this ſpecies, the ſerpent of Carolina deſcribed by Cateſby†, under the name of copper-belly ſnake. Its head has nine large ſcales in four rows.

* C. ſtriatulus. Syſt. Nat. ed. Gm. i. 1087. G. 125. Garden.—Le Strié. Encyclop. Method.

† Nat. Hiſt. of Carolina, ii. t. 46.

Striated Viper.

The back ſcales have each a longitudinal ridge. The upper ſurface of the body is brown; and the under ſurface of a copper red, which might readily be changed, by the ſpirits or ſome other cauſe, into the pale hue mentioned by Linnaeus. According to Cateſby, this ſerpent frequents water and feeds on fiſh. It likewiſe preys on birds and ſmall quadrupeds. It is very nimble and extremely bold, coming into the yards in country places, and deſtroying young poultry. It has no venom.

Sp. CV. *THE PUNCTUATED VIPER* *.

Punctuated Viper.

THIS ſpecies, tranſmitted from Carolina to Linnaeus by Garden, is aſh coloured above and yellow underneath, having nine ſmall black points or ſpots on the belly, in three rows of three each. It has uſually

* C. punctatus. Syſt. Nat. ed. Gm. i. 1089. G. 125. Garden.—Le Ponctué. Encyclop. Method.

usually an hundred and thirty-six large plates, and forty-three pairs of small plates. Punctuated Viper.

Sp. CVI. *THE BLUET**.

THE bluet is found in America. The back scales are half white half blue. The top of the head is bluish. The tail is altogether blue, and very slender. The belly is white. The belly has an hundred and sixty-five large plates, and the tail twenty-four pairs of small plates. Bluet,

Sp.

* C. caeruleus. Syst. nat. ed. Gm. i. 1093. G. 125. Amoen. ac. i. 303. n. 31. Seba. Mus. ii. t. 13. f. 3.—Le Bluet. Encyclop. Method.

Sp. CVII. *THE WAMPUM* *.

Wampum.

THE preſent ſpecies, according to Cateſby, is ſo named in Carolina and Virgina, from the reſemblance of its colours to certain money uſed by the Indians, which is called Wampum. That money is compoſed of ſmall ſhells, very regularly cut, and threaded on blue and white ſtrings.

The upper ſurface of the body is blue, of various ſhades, ſometimes almoſt black on the middle of the back, having tranſverſe white bars, which all divide in two on each ſide. The under ſurface is brighter blue, having a narrow brown tranſverſe bar on each plate.

The wampum is ſometimes five feet long, of which the tail is about a quarter part.

* C. faſciatus. Syſt. Nat. ed. Gm. i. 1094. G. 125. Garden. Cateſby. Car. ii. t. 58 ?—Le. Wampum. Encyclop. Method.

part. The head is small in proportion to the body, and has nine large scales in four rows. A small specimen, in the royal cabinet, measures twenty two inches, of which the tail is six inches. It has usually an hundred and twenty eight large plates, and sixty seven pairs of small plates. It has no poison fangs, but is very voracious, devouring every little animal that it is able to master. Wampum.

Sp. CVIII. *THE COBEL* *.

THIS species is extremely numerous in America. It is of an ashen gray colour, with a great number of oblique white rays or streaks; and has sometimes transverse whitish bars. The under surface is white, with a great number of unequal transverse Cobel.

* C. Cobella. Syst. Nat. ed. Gm. i. 1095. G. 125. Amoen. ac. i. 117. n. 14. & 302. n. 28. & 496. n. 14. Gron. Mus. ii. 65. n. 32. Boddaert. nov. act. Caes. vii. 19. n. 9. Weigel. Natur. ges. i. 17. n. 12—23.—Seba. Mus. ii. t. 2. i. 6.—Cerastes cobella. Laur. amph. 82. n. 172. Le cobel. Encylop. Method.

Cobel. tranſverſe blackiſh bars. Behind each eye is a ſomewhat livid oblong ſpot, placed obliquely. The top of the head has nine large ſcales in four rows. The ſpecimen, from which our deſcription was taken, meaſured ſixteen inches and three quarters, of which the tail was three inches and ten lines. The belly has uſually an hundred and fifty large plates, and the tail fifty-four pairs of ſmall plates *'.

'This ſpecies ſeems extremely liable to 'diverſity, but is moſtly barred tranſverſe-'ly on the belly. The belly and tail plates 'are likewiſe extremely variable in their 'numbers. The following are enumerated 'in the laſt edition of the Syſtem of Na-'ture, by Gmelin; after which his deſcrip-'tion is ſubjoined, but which is hardly 'intelligible, from exceſſively erroneous 'punctuation.'

150—54 154—40 151—51 154—50 153—50
151—51 151—54 150—50 152—50 150—52
155—58 152—53 150—54 157—55.

'The

* Added by the Tranſlator.

'The Cobel varies in length, from eight to about twenty-two inches; of which the tail, which is very small at its origin and ends obtusely, is about a fifth or sixth part. It is sometimes ash coloured with oblique narrow white streaks, and sometimes brown with oblique black streaks; the under surface being chequered with brown and white transverse bars. Sometimes the upper surface is gray, and the under surface barred transversely with white; the scales being white in the middle with brown edges. Sometimes the upper surface is brown, with paler oblique lines, which run together towards the sides. Sometimes pale brown above, the back scales having white edges. Sometimes barred transversely above with black, and having paler oblique lines; the belly being whitish, with transverse dark brown or blackish bars.' Cobel.

Sp.

Sp. CIX. *THE BLACK-HEADED VIPER* *.

Black-headed Viper.

THIS ſerpent is found in America. The upper ſurface of the body is brown having ſometimes whitiſh ſpots in tranſverſe rows. The under ſurface is variegated with whitiſh and dark brown, in tranſverſe ſquared ſpots or bars. The head is black, having nine large ſcales in four rows. The back ſcales are oval and plain. A ſpecimen in the royal cabinet is twenty-five inches and a half long, of which the tail is four inches and a half. It has uſually an hundred and forty large plates on the belly, and ſixty-two pairs of ſmall plates under the tail †.

Sp.

* C. melanocephalus. Syſt. Nat. ed. Gm. i. 1095. G. 125. Muſ. Ad. Fr. i. 24. t. 15. f. 2. Weigel. Naturf. ges. i. 15. n. 7—10.—La Tete noire. Encyclop. Method.

† Theſe numbers are ſubject to conſiderable variation. Beſides thoſe given above, Gmelin adds the following, 151—49, 156—42, 197—79, and 180—82. —T.

Sp. CX. *THE ANULATED VIPER* *.

Anulated Viper.

THIS viper is found in Carolina and in Martinique, from which laſt place a ſpecimen was tranſmitted to the royal cabinet. It is white, for the moſt part very bright, with black or blackiſh rings ſurrounding the whole body: But the upper and under parts of theſe circular bars do not exactly correſpond with each other. Sometimes a very dark narrow ſtripe runs along the back. The neck is white; the top of the head almoſt black, and is armed with nine large ſcales in four rows. The back ſcales are lozenge ſhaped and plain. It has no poiſon fangs. Our ſpecimen is ſeven inches and a third long, of which the tail is one inch and nearly a half. The belly

* C. doliatus. Syſt. Nat. ed. Gm. i. 1096. G. 125. Garden. Boddaert. nov. act. Caes. vii. n. 22.—L'Annellé. Encyclop. Method.

Anulated Viper.

belly has an hundred and ſixty-four large plates, and the tail forty-three pairs of ſmall plates *.

Sp. CXI. *THE AURORA* †.

Aurora.

THE Aurora may be diſtinguiſhed at a diſtance by its colours. The back is pale grey, with a broad longitudinal ſtripe of yellow on the back; the ſcales of this ſtripe having uſually orange edges. The top of the head is yellow with red dots. The neck and tail are thick; the belly has an hundred and ſeventy nine large plates, and the tail thirty-ſeven pairs of ſmall plates.

Sp.

* In a ſecond ſpecimen, quoted in the Syſtem of Nature, there are an hundred and ſixty-ſix large plates, and forty pairs of ſmall ones.—T.

† C. Aurora. Syſt. Nat. ed. G. i. 1098. G. 125. Muſ. Ad. Fr. 25. t. 19. f. 1.—Ceraſtes Aurora. Laur. amph. 82 n. 169.—Jaculus, Seba. Muſ. ii. t. 78. f. 3. L'Aurore. Encyclop. Method.

Sp. CXII. *THE SPRINGING VIPER* *.

Springing Viper.

ACCORDING to Linnæus, this ſpecies has conſiderable affinity with the ſtreaked viper, Sp. 59 of this work. It is of an aſhen gray colour, with a longitudinal blackiſh ſtripe, edged with full black, on the back, from the muzzle to the tip of the tail. A ſimilar, but narrower, ſtripe runs along each ſide. The under ſurface of the body is whitiſh. This ſerpent inhabits Surinam; and has the power of ſpringing upon its prey with the rapidity of an arrow or dart. But it is neceſſary to obſerve, that ſeveral other ſpecies, from the ſame quick-

* C. jaculatrix. ſyſt. nat. ed. Gm. i. 1102. G. 125. and C. atratus. Syſt. nat. ed. Gm. i. 1103. G. 125. Gronov. Muſ. ii. 63. n. 26. Zooph. n. 114. Boddaert. nov. act. Caes. vii. 21. n. 15.—Jaculatrix Surinamenſis. Scheuchz. phys. ſacr. t. 715. f. 2.—Xequipiles. Seba, Muſ. ii. t. 1. f. 9. and t. 9. f. 2.—Le Dard. Encyclop. Method.

Springing Viper.

ness of leaping, have been called by similar names. It has an hundred and sixty-three large plates, and seventy-seven pairs of smaller plates *.

Sp. CXIII. *THE LAPHIATI* †.

Laphiati.

THIS species is named as above in Brasil; and, according to Seba, its colours are very beautiful. By the description of Linnaeus, it does not seem so brilliant, but his specimen may have been injured

* In the System of Nature, as edited by Gmelin, an individual of this species is quoted having 173 large plates, and 78 pairs of small ones.

It may be proper to remark here, that Gmelin has made two species of this Viper; quoting, under the name of C. atratus, exactly the same authorities as for the C. jaculatrix, and giving the same numbers of large and small plates in both.—T.

† C. aulicus. Syst. Nat. ed. Gm. i. 1103. G. 125. Mus. Ad. Fr. i. 29. t. 12. f. 2. Seba, Mus. i. t. 91. f. 5.—Natrix aulica. Laur. amph. 74. n. 148.—La Lozenge. Encyclop. Method.—La Laphiati, in the original.

injured by keeping. According to Linnaeus, it is gray, with narrow transverse white bars, which divide each in two on each side. If these bifurcated bars unite with the bifurcations of each other, the general arrangement will agree with the description given by Seba. But he mentions reddish instead of gray, and yellow in place of white. The top of the head is white; and a triangular white spot on each side of the hind head unite on the back of the neck. The belly has an hundred and eighty-four large plates and the tail sixty pairs. Laphiati.

Sp. CXIV. *THE BLACK-AND-REDDISH VIPER**.

THE colours of this species are indicated by its trivial name. The body is surrounded with alternate circular bars of black and reddish edged with white, and spotted Black and reddish Viper.

* C. Fulvus. Syst. nat. ed. Gm. i. 1104. G. 125. Garden.—Le Noire-et-fauve. Encyclop. Method.

Black and reddish Viper.

spotted with brown; and there are usually twenty-two of each. The muzzle and top of the head are usually blackish. The tail scarcely exceeds a twelfth part of the total length; a specimen in the royal collection measuring twenty-three inches long, of which the tail is two inches. The top of the head has nine large scales in four rows. The back scales are hexagonal and plain. The belly has two hundred and eighteen large plates, and the tail thirty-one pairs of small plates. It is found in Carolina, where it was first observed by Dr Garden, who transmitted a specimen to Linnaeus.

Sp. CXV. *THE CHAIN VIPER* *.

Chain Viper.

CATESBY has figured this species which he found in Carolina, and which was afterwards transmitted to Linnaeus by Garden.

* C. getulus. Syst. nat. ed. Gm. i. 1106. G. 125. Garden.—Chain snake. Catesby. Carol. ii. t. 52.—La Chaine. Encyclop. Method.

den. The upper parts of the body are dark blue, almoſt black, having very narrow tranſverſe bars, compoſed of ſmall ſpots, which give them a reſemblance to chains. The under parts are dark blue, with ſmall yellow ſpots, which are almoſt ſquare. The ſpecimen deſcribed by Cateſby was almoſt two feet and a half long, of which the tail was about a fifth part. The belly has two hundred and fifteen large plates, and the tail forty-four pairs. Chain Viper.

Sp. CXVI. *THE RIBBON VIPER**.

ON a whitiſh ground ſeveral ribbon like longitudinal ſtripes, either black or of a very dark colour, extend over the whole upper ſurface of this ſerpent. The belly Ribbon Viper.

* C. vittatus. Syſt. nat. ed. Gm. i. 1098. G. 125. Amoen. ac. i. 30. n. 27. Muſ. Ad. Fr. 26. t. 18. f. 2. Gronov. Muſ. ii. 65. n. 31. Zooph. i. 23. n. 119. Boddaert. nov. act. Caes. vii. 21. n. 17.—Natrix vittata. Laur. amph. 74. n. 147.—Seba, Muſ. ii. 45. f. 5. & t. 60. f. 2. & 3.—Le Moqueur. Encyclop. Method.—La Rubannée, in the original.

Ribbon Viper.

belly scales are edged with brown; and the under surface of the tail has a longitudinal white stripe notched on both edges. The head is black, much elongated, and broad behind, being marked with small crooked white streaks, and having a large black spot edged with white on each side of the hind head. The head of this species, like that of the Molurus, the two-spot Viper, and several of the Boa genus, has been thought to resemble the head of a dog.

This species emits a stronger sound, when frightened, than most serpents; and some travellers have compared its cry or hiss to a kind of contemptuous laugh, or to an expression of desire to be looked at and admired *. It is found in America, and probably likewise in Asia. The belly has an hundred and forty two plates, and the tail seventy-eight pairs †.

Sp.

* Seba, ii. p. 47.

† In one specimen, quoted in the System of Nature, there are 155 of the former, and 62 of the latter.—T.

Sp. CXVII. *THE MEXICAN VIPER**.

THIS viper is found in America, and probably in Mexico from the name given to it by Linneaus, who only informs us that it is not venomous, and does not grow to any conſiderable ſize; and that it has an hundred and thirty-four large plates, with ſeventy-ſeven pairs under the tail. Mexican Viper.

In Mexico, along with other ſmall ſerpents, this ſpecies probably is preyed on by the Hoazin, a kind of pheaſant, which inhabits the tropical regions of north America, and lives chiefly on ſerpents, like the eagles, ibis, ſtorks, and ſeveral other birds. In warm countries abounding in ſtagnant waters, which are but thinly inhabited, and where various reptiles multiply exceedingly, is it certainly uſeful that venomous ſerpents

* C. Mexicanus. Syſt. nat. ed. Gm. i. 1097. G. 125. Le Mexicain. Encyclop. Method.

Mexican Viper.

ſhould be deſtroyed as much as poſſible. We ſhould even wiſh to ſee the dangerous ſpecies extirpated altogether: And therefore it is not to be wondered at that, in ſuch countries, birds which feed on them ſhould be conſidered as a kind of tutelary deities, and that religion and law ſhould have combined to render them ſacred, as was formerly the caſe in Egypt with the Ibis, and the ſtork in Theſſaly. But there ſeems no good reaſon for deſtroying thoſe other ſpecies of reptiles, which poſſeſs no venom, and have not ſufficient ſtrength to be hurtful to mankind or to uſeful animals. Theſe innocent ſerpents ought to be allowed to multiply, eſpecially near cultivated places, as they deſtroy vaſt numbers of noxious inſects, and do not feed on any of the plants which are cultivated for the uſe of man.

SP.

Sp. CXVIII. *THE SIPEDON**.

THIS ſpecies was diſcovered by Kalm in North America. It is of a brown colour; having an hundred and forty-four plates on the belly, and ſeventy-three pairs under the tail. Sipedon.

Sp. CXIX. *THE GREEN-AND-BLUE VIPER*†.

THIS ſpecies reſembles the boiga a good deal in its light and elegant figure, but does not approach it in beauty of colours. The upper ſurface is deep blue, without ſpot, and the under ſurface pale green. Green-and-blue Viper.

* C. Sipedon. Syſt. Nat. ed. Gm. i. 1098. G. 125. Kalm.—Le Sipéde. Encyclop. Method.

† C. cyaneus. Syſt. Nat. ed. Gm. i. 1100. G. 125. Amoen. ac. i. 493. n. 10. Seba, muſ. ii. 43. f. 2.—Le Vertet-bleue. Encyclop. Method.

Geeen-and-blue Viper.

green. The top of the head has nine large ſcales in four rows, and the back ſcales are oval and plain. It is uſually about two feet long, of which the tail is ſix inches. The belly has an hundred and nineteen large plates, and the tail an hundred and ten pairs of ſmall plates. It is found in America, and is ranked, by Linnaeus, among thoſe vipers which have no poiſon fangs.

Sp. CXX. *THE CLOUDED VIPER**.

Clouded Viper.

THIS ſpecies is clouded on its upper ſurface with brown and aſh colour, and varied underneath with brown and white. It is not venomous; but, when alarmed

* C. nebulatus. Syſt. Nat. ed. Gm. i. 1107. G. 125. Muſ. Ad. Fr. 32. t. 24. f. 1. Weigel, Naturf. geſ. i. 32. n. 44. 45.—Ceraſtes nebulatus. Laur. amph. 83. n. 174.—Le Nebuleux. Encyclop. Method.—La Nebuleuſe, in the original French.

alarmed or irritated, it sometimes twists very tightly round peoples legs, and is difficultly removed. It inhabits America, and grows to about two feet and a half long. The belly has an hundred and eighty-five plates, and the tail eighty-one *. Clouded Viper.

Sp. CXXI. *THE SAURITIN* †.

THIS species has a good deal of resemblance to the grey and green lizards, both in its colours and in agility of motion; from which circumstance the trivial name is derived ‡. Its body is slender and elegantly proportioned; of a dark brown colour, Sauritin.

* In the System of Nature, two other specimens are quoted with different numbers; the one having 185—88, and the other 178—81.—T.

† C. Saurita. Syst. Nat. ed. Gm. i. 1109. G. 125. Garden. Catesby, Carol. ii. t. 50.—Le Saurite. Encyclop. Method.

‡ Saurita, from Σαυρος, Lacerta; or lizard-like viper.

Sauritin. lour, with three longitudinal white or green ſtripes, extending from the head to the tail. The belly is white, having an hundred and fifty-ſix plates; and the tail has an hundred and twenty-one pairs of ſmall plates. The ſauritin is found in Carolina, from whence it was tranſmitted by Garden to Linnaeus. The jaws have no poiſon fangs.

Sp. CXXII. *THE KNOT* *.

Knot. THE knot is very common in Virginia and Carolina, where it has been obſerved by Cateſby and Smith. The upper parts of the body are black and gloſſy, and the under parts bluiſh, with in general a white throat. It has an hundred and eighty-ſix large plates, and ninety-two pairs of ſmall plates. It is very ſlender and very ſmooth.

Although

* C. conſtrictor. Syſt. Nat. ed. Gm. i. 1109. G. 125. Kalm. it. iii. 136. Cateſby, Carol. ii. t. 48.—Le Serpent Lien. Encyclop. Method.—Le Lien, in the original.

Although entirely deſtitute of venom, it is very ſtrong, and defends itſelf obſtinately when attacked, twiſting itſelf forcibly round the legs of thoſe who diſturb it, and even biting ſeverely. It even fights, often with advantage, againſt the rattle-ſnake and other pretty large ſerpents; which it frequently kills, by twiſting ſpirally about their bodies, ſuffocating them by the violence of its contractile force. It muſt be of conſiderable ſize, as it often ſwallows ſquirrels, and other tolerably large animals, ſuch as frogs, which it has been ſeen to diſgorge ſtill alive. It likewiſe devours rats and mice, which it purſues with great nimbleneſs even to the tops of houſes and barns. On this account it is very uſeful to the inhabitants, anſwering better even than cats to rid their dwellings of thoſe deſtructive animals, as it is able to follow them into their holes. Hence ſeveral of the Americans are at great pains to preſerve and even to multiply the breed. Knot.

SP.

Sp. CXXIII. *THE SIRTALIN* *.

Sirtalin.

THIS ſpecies was obſerved in Canada by Kalm. It has a good deal of reſemblance to the ſauritin, Sp. 121. The upper parts of the body are brown, with three longitudinal ſtripes of green, changing with the light to blue. Linnæus mentions its back being ſtriated, from which we may ſuppoſe the ſcales have longitudinal ridges. The body is ſlender. It has an hundred and fifty large plates, and an hundred and fourteen pairs of ſmall plates.

Sp.

* C. Sirtalis. Syſt. nat. ed. Gm. i. 1107. G. 125. Kalm.—Le Sirtale. Encyclop. Method.

Sp. CXXIV. *THE BROWN-AND-WHITE VIPER* *.

Brown-and-white Viper.

THIS harmleſs ſpecies is a native of America. The upper parts of the body are whitiſh † with brown rounded ſpots; two or three of which are united in ſeveral places. The under parts are reddiſh white. The top of the head has nine large ſcales in four rows. The back ſcales are oval and plain. A ſpecimen preſerved in the royal collection is a foot and a half long, of which the tail is four inches and a half ‡. It has an hundred and ninety large

* C. annulatus. Syſt. Nat. ed. Gm. i. 1111. G. 125. Amoen. ac. i. 120. n. 9. & 305. n. 34. Muſ. Ad. Fr. 34. t. 8. f. 2. Weigel, Naturf. geſ. i. 37. n. 52—57. Seba, muſ. ii. t. 38. f. 2.—Le Bai-rouge. Encyclop. Method.—La Blanche-et-brune, in the original.

† The Syſtem of Nature ſays, aſh coloured, grey, pale brown, or browniſh white.—T.

‡ According to the Syſtem of Nature it grows to more than three feet long.—T.

Brown-and-white Viper.

large plates, and ninety-six pairs of small plates*.

Sp. CXXV. *THE GREENISH VIPER* †.

Greenish Viper.

THIS viper, which resembles the boiga, Sp. 64. is equally harmless and beautiful; and the natives of Carolina rather take a pleasure in handling instead of destroying it. Some even are fond of carrying it about in their bosoms. It is extremely common in woody and bushy places; where it is seen twisted round the branches and hanging from the twigs in search of the insects on which it feeds.

It

* Besides these numbers, the System of Nature enumerates the following, affixing a mark of doubt to the last set.—T.

184—60	186—84	190—96
196—95	194—91	256–166?

† C. aestivus. Syst. nat. ed. Gm. i. 1114. G. 125. Garden.—Green Snake. Catesby, Carol. ii. t. 57.—Le Verdatre. Encyclop. Method.

It is extremely ſmooth, and according to Cateſby, who examined it in its native haunts, is green above; though Linnaeus ſays that it is blue, probably from his ſpecimen being altered by keeping. The under parts are greeniſh, and leſs or more mixed with yellow. The length of this ſpecies is not mentioned, but the tail is ſaid to be a third the length of the body. It has an hundred and fifty-five large plates, and an hundred and forty-four pairs of ſmall plates. Greeniſh Viper.

Sp. CXXVI. *THE GREEN VIPER* *.

THE whole body of this viper is bright green, rather brighter on the belly than the back. The top of the head has nine large ſcales in four rows; the back ſcales are oval and ſmooth; the jaws have no poiſon fangs. A ſpecimen in the royal Green Viper.

* C. viridiſſimus. Syſt. Nat. ed. Gm. i. 1118. G. 125. Muſ. Ad. Fr. ii. 46.—Le Vert. Encyclop. Method.

Green Viper.

cabinet is twenty-six inches and three quarters long, of which the tail is a little more than seven inches. It has two-hundred and seventeen large plates, and an hundred and twelve pairs of small plates. According to the System of Nature it is found in Surinam.

Sp. CXXVII. *THE CENCO.*

Cenco.

THE head of the Cenco is very large in proportion to its body, and is somewhat globular, being white, mottled with black, and having nine large scales in four rows. The back scales are oval and plain. The upper parts of the body are brown, with whitish or rusty spots; some individuals having likewise a number of smaller spots; and sometimes a few transverse white bars.

The

* C. Cenchoa. Syst. Nat. ed. Gm. i. 1118. G. 125. Amoen. ac. i. 306. n. 37. Seba, Mus. ii. t. 16. f. 2. 3. —Cencoatl. Bomare, Dict. d'Hist. Nat.—Le Cenco. Encylop. Method.

The Cenco is found in America, and feeds on worms and ants. It is ſometimes four feet long, and ſo ſlender that its body is hardly thicker than a ſwans quill. The tail is uſually about a third the length of the body. The belly has two hundred and twenty large plates, and the under ſurface of the tail an hundred and twenty-four pairs of ſmall plates. Ceneo.

Sp. CXXVIII. *THE CALMAR* *.

THE Calmar inhabits America, and has nothing remarkable in its form or colours. It is of a livid colour with tranſverſe brown bars, and ſmall brown ſpots diſpoſed in rows. The under parts of the body are chequered with ſomewhat ſquare brown ſpots. The tail is marked by an iron gray longitudinal ſtreak. It has an hundred and forty large plates, and twenty two pairs of ſmall plates. Calmar.

* C. Calamarius. Syſt. Nat. ed. Gm. i. 1086. G. 125. Muſ. Ad. Fr. i. 23. t. 6. f. 3.—Anguis Calamaria. Laurent. amph. 127.

Sp. CXXIX. *THE EGG-EATER*.

Egg-eater.

LINNAEUS gives this name, on the authority of Kalm, to a viper of America; and only informs us that it has two-hundred and three large plates on the belly, and seventy-three pairs of small plates under the tail. He likewise quotes Piso; but that writer only says that a serpent named Guinpuaguara is found in South America; and neither he, nor his continuator Marcgrave, gives any description or account of that serpent.

Sp.

* C. ovivorus. Syst. Nat. ed. Gm. i. 1109. G. 125. Kalm.—Guinpuaguara. Pis. Bras. 279.—Le Guimper. Encyclop. Method.—L'ovivore, in the original.

Sp. CXXX. *THE HORSE-SHOE VIPER* *.

Horse-shoe Viper.

THIS ſpecies receives its trivial name from a large arched brown ſpot on the hind head, ſomewhat ſhaped like a horſe-ſhoe. It is of a livid colour with brown ſpots; having creſcent ſhaped brown ſpots on the top of the head, and a tranſverſe brown bar between the eyes. It inhabits America, and has two hundred and thirty-two large plates, and ninety-four pairs of ſmall plates.

In the royal cabinet there is a ſpecimen which reſembles a good deal the horſe-ſhoe viper, as deſcribed by Linnaeus; having two hundred and forty-one large plates, and ſeventy nine pairs of ſmall plates.

* C. Hippocrepis. Syſt. Nat. ed. Gm. i. 1117. G. 125. Muſ. Ad. Fr. i. 36. t. 16. f. 2.—Natrix hippocrepis. Laur. amph. 77. n. 155. Le Fer-à-cheval. Encyclop. Method.

Horse-shoe Viper.

It measures one foot ten inches long, of which the tail is four inches and a half. The top of the head has nine large scales in four rows; the back scales are rhombic and plain. The upper parts of the body are livid with brown spots; having four longish and blackish spots on each side of the fore part of the body; and four other similar spots on the neck, of which the two outermost incline to each other and almost meet on the hind head.

SP. CXXXI. *THE IBIBE* *.

Ibibe.

THE name here adopted for this species was contracted by Daubenton from the Brasilian name under which it is described by Seba. Catesby describes it as green,

* C. ordinatus. Syst. Nat. ed. Gm. i. 1097. G. 125. Garden. Gronov. Mus. ii. n. 37. Boddaert. nov. act. Cæs. vii. 22. n. 21. Catesby, Carol. ii. t. 53.—Ibiboboca, Brasilienſis. Seba, Mus. ii. t. 20. f. 2.—L'Ibibe. Encyclop. Method.

green, with black cloudy ſpots, while Linnaeus ſays it is blue. On each ſide there is a row of ſmall black ſpots in regular order, uſually placed at the end of the large plates. Sometimes a dark green ſtreak, at other times bright, extends along the back. The top of the head has nine large ſcales in four rows, the back ſcales are oval and ridged. It has an hundred and thirty-eight large plates, and ſeventy-two pairs of ſmall plates. It has no venom, but is troubleſome in poultry yards, as it breaks and ſucks the eggs; but is not large enough to deſtroy even the youngeſt chickens. Ibibe.

A ſpecimen in the royal cabinet meaſures two feet in length, of which the tail is almoſt five inches. It differs in ſome meaſure from other vipers in the arrangement of the plates; as four undivided plates are placed below the vent between that and the firſt pair of ſmall plates.

Changeable Viper.

SP. CXXXII. *THE CHANGEABLE VIPER*.*

Changeable Viper.

THE Count de Raſoumowſky gives a deſcription of this viper, which is found in damp ditches, and near ſtagnant waters, in the neighbourhood of Lauſanne, where it is not conſidered as venomous. It grows to about eighteen inches long, and the thickneſs of a large gooſe quill. The upper part of the body is cinereous gray, and ſhining as if ſmeared with oil, having a longitudinal zig-zag ſtripe on the back, formed of tranſverſe bars. The plates on the belly and tail are brown red, ſpotted with white, the poſterior edges being bluiſh; when viewed in clear ſun ſhine, the plates have a very brilliant luſtre, and change as the light is reflected from them to a fine blue. The back ſcales have the ſame effect, but

* La Chatoyante. Hiſt. Nat. du Jorat et de ſes environs, par Roſoumowſky. i. 122. t. 6. f. a. b.

but in a leſs degree. The top of the head has nine large ſcales in four rows; and has a brown, ſomewhat heart-ſhaped, ſpot. The belly plates vary from an hundred and fifty-ſix to an hundred and ſixty-one, and the under ſurface of the tail has an hundred and thirteen pairs of ſmall plates. Changeable Viper.

Sp. CXXXIII. *THE SWISS VIPER* *.

THIS viper was obſerved by Count Raſoumowſky in the ſame country with the former ſpecies. It frequents ditches, and thickets in moiſt places, and is found in the woods on mount Jura. The eggs are depoſited in warm places, and particularly in dung hills. They are glued together often, as our author was informed, to the number of forty-two or more. When the young ones firſt come out of the eggs, they Swiſs Viper.

* Couleuvre vulgaire. Raſoumowſky, Hiſt. Nat. du Jorat. i. 121. & 128.—La Suiſſe, of the original French of this work.

Swiſs Viper.

they are quite nimble, are more than ſix inches long, and are brighter coloured than when full grown. The country people conſider the Swiſs viper as venomous; but it is quite innocent, having no poiſon fangs.

It is of an aſhen grey colour, with ſmall black ſtreaks on the ſides, and having a longitudinal ſtripe on the back, compoſed of narrow tranſverſe blackiſh ſtreaks. The under ſurface of the body is black, with bluiſh white ſpots, which are larger on the belly than the under ſurface of the tail. It grows to the length of three feet; having as far as an hundred and ſeventy large plates, with an hundred and twenty ſeven pairs of ſmall plates. The back ſcales are oval and ridged *.

Sp.

* I ſhould ſuſpect that this and the one immediately preceding may belong to the ſame ſpecies. Perhaps different ſexes, and obſerved at different ſeaſons, or in different periods of growth.—T.

Sp. CXXXIV. *THE IBIBOCA.*

A Specimen in the royal cabinet was sent under this name from Brasil, where the Portuguese name it Cobra de coais. The top of the head has nine large scales in four rows. The back scales are rhombic and plain, of a greyish colour with white edges, and are in several places separate from each other. It is five feet six inches and a half long, of which the tail is seven inches. The belly has an hundred and seventy-six large plates, and the tail an hundred and twenty-one pairs of small plates. Ibiboca.

Our specimen had been put into spirits at a time when both the penes were excerted. Each is about half an inch long, and about the same in diameter. The extremities are like radiated flowers, having five concentric plaited and fringed membranes;

Ibiboca. branes; around which are four circular rows of ſpinous papillae, apparently horney; and the whole ſurface of both are thickly covered with almoſt imperceptible ſpines.

Sp. CXXXV. *THE MOTTLED VIPER**.

Mottled Viper. WE give this name to a ſpecimen in the royal cabinet, which was ſent from Louiſiana. The upper parts of the body are whitiſh, with large lozenge ſhaped reddiſh brown ſpots, edged with black or dark brown, and ſometimes irregular in their ſhape. There is often, from the neck for about a quarter of the length of the body, a double row of theſe ſpots, forming a kind

* La Tachetée, of the original.

In the ſyſtematic catalogue of this tranſlation, the preſent ſpecies has been named the *Spotted Viper*, which name is already appropriated to Sp. 102. by inconſiderately tranſlating *mouchetée* and tachetée with the ſame word. The reader is requeſted to alter this, p. 150 of vol. iii. line 1ſt.—T.

kind of zig-zag ſtripe. The belly is whitiſh, and ſometimes ſpotted. It is two feet long, of which the tail is five inches and a third. The belly has an hundred and nineteen large plates, and the tail ſeventy pairs. The head has nine large ſcales in four rows. The back ſcales are hexagonal, and ridged. It has no poiſon fangs. Mottled Viper.

This is probably the ſame ſpecies which is figured by Cateſby*, under the name of corn ſnake, from its reſemblance to one of the kinds of maize or Indian corn. That ſerpent is found in Virginia and Carolina; where it ſometimes comes into the poultry yards and ſucks the eggs.

SP.

* Vol. ii. pl. 55.

Sp. CXXXVI. *THE TRIANGLE VIPER.*

Triangle Viper.

WE ſhall deſcribe, under this name, a ſpecimen, from America, in the royal collection. The head has nine large ſcales in four rows; and has on the top a triangular ſpot, in the middle of which is a ſmaller triangle of a brighter and ſometimes deeper colour. The upper part of the body is whitiſh, with irregular reddiſh ſpots edged with black. On each ſide of the back is a row of ſmall ſpots. Behind each eye is an oblique longiſh black ſpot. The back ſcales are lozenge ſhaped and plain.

Our ſpecimen is two feet ſeven inches and a ſixth in length, of which the tail is three inches. It has two hundred and thirteen large plates, and forty eight pairs of ſmall plates.

Sp.

Sp. CXXXVII. *THE THREE-ROW VIPER*.*

Three-row Viper.

WE give this name to a ſpecimen in the royal cabinet, from its having three longitudinal rows of dark ſpots, on a whitiſh ground. The under ſurface of the body is varied with whitiſh and brown. The head has nine large plates in four rows, and has no poiſon fangs. The back ſcales are oval and ridged. Our ſpecimen meaſures eighteen inches long, of which the tail is four inches. It has an hundred and fifty plates on the belly, and fifty-two pairs under the tail.

Sp.

* In the text of the original, this is named Le Triple-rang: In the plate, Couleuvre à trois rangs.

Sp. CXXXVIII. *THE NETTED VIPER*[p].

Netted Viper.

THERE are ſeveral ſpecimens of this viper in the royal cabinet, which were tranſmitted from Louiſiana. The longeſt of theſe is almoſt four feet long, of which the tail is ten inches. The ſcales on the upper ſurface of the body are plain, lozenge ſhaped, and whitiſh, with white edges, forming a kind of net-work, from which we have taken the trivial name here uſed. It has no poiſon fangs. The head has nine large ſcales in four rows. The belly has two hundred and eighteen large plates, and eighty pairs of ſmall plates.

The netted viper reſembles the ibiboca, Sp. 134, a good deal in its colours; but differs from it in ſeveral circumſtances, particularly in the number of its plates.

Sp.

[p] La Reticulaire, of the original.

Se. CXXXVIII. THE HORNED VIPER*.

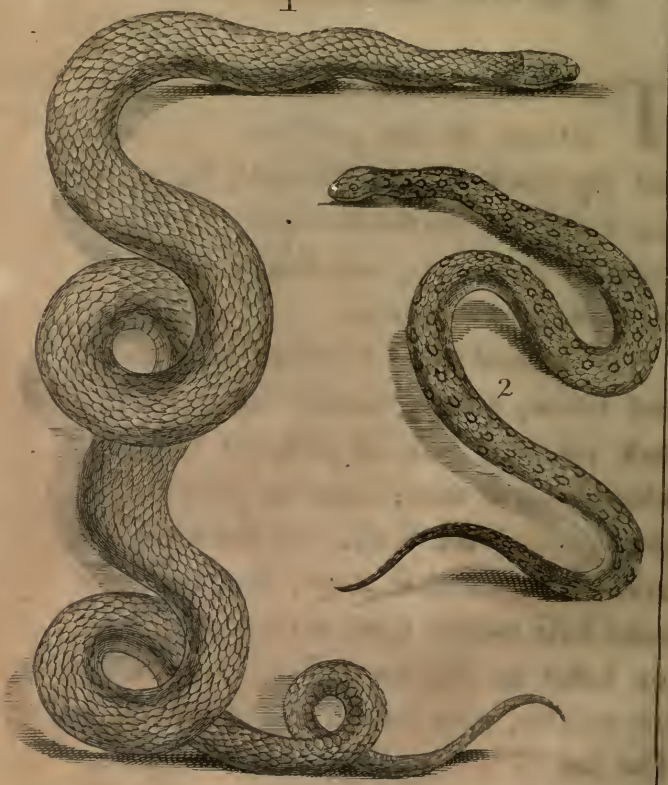
Horned Viper.

THERE are several specimens of this viper in the royal cabinet, which were transmitted from Louisiana. The longest of these is almost four feet long, of which the tail is ten inches. The scales on the upper surface of the body are plain, lozenge shaped, and whitish, with white edges, forming a kind of net-work, from which we have taken the trivial name here used. It has no poison fangs. The head has nine large scales in four rows. The belly has two hundred and eighteen large plates, and eighty pairs of small plates.

The horned viper resembles the ibiboca, Sp. 134, a good deal in its colours; but differs from it in several circumstances, particularly in the number of its plates.

Se.

* La Petite, of the original.



D. Lizars. Sculpt

1. Netted Viper Sp. 138. 2. Three-row Viper Sp. 137.

Sp. CXXXIX. *THE GIRDLED VIPER* *.

THIS ſpecies has conſiderable reſemblances to the annulated, Sp. 110. and the black-and-reddiſh viper, Sp. 114: But it differs from the former in the diſpoſition of its colours, and from the latter in the number of its plates. Girdled Viper.

The girdled viper is white both above and below, with a number of tranſverſe dark coloured bars, of different breadths, which form ſo many zones or girdles completely round the body. In the white intervals between theſe zones, ſeveral of the ſcales have reddiſh ſpots at their ends. All the ſcales on the lips and top of the head are whitiſh, with brown or reddiſh edges. The top of the head has nine large plates. The back ſcales are rhombic and plain. It is not venomous.

* La Couleuvre à zones, in the original.

Girdled Viper.

Our ſpecimen is a foot long, of which the tail is an inch and a half. The belly has an hundred and ſixty-five plates, and the tail thirty-five pairs.

Sp. CXL. *THE REDDISH VIPER**.

Reddiſh Viper.

THIS ſpecies, which forms a part of the royal collection, is reddiſh above in different ſhades, and whitiſh underneath. It is not venomous. Our ſpecimen is ſeventeen inches and a third in length, of which the tail is three inches. The top of the head has nine large ſcales in four rows. The back ſcales are rhombic and plain. The belly has two hundred and twenty-four large plates, and the tail ſixty-eight pairs.

Sp.

* La Rouſſe, of the original.

Sp. CXLI. *THE BROAD-HEADED VIPER* *.

Broad-headed Viper.

WE give this name to a ſpecimen in the royal cabinet, which was brought by M. Dombey from South America. The head, which is flattened both above and below, is very broad in proportion to the body. The upper ſurface is whitiſh, with large irregular dark coloured ſpots, which unite in ſeveral places along the back, eſpecially towards the head and tail. The under ſurface is whitiſh, with ſmaller and more diſtant ſpots, which are ranged along each ſide of the belly.

The top of the head has nine large ſcales in four rows. The muzzle is terminated by an erected ſcale, almoſt vertical, as in ſeveral ſpecies of venomous vipers; yet there are no poiſon fangs. The back ſcales are oval, ſmooth, and ſomewhat ſe-

 parate

* La Large-tête, of the original.

Broad-headed Viper.

parate from each other. Our ſpecimen is four feet nine inches long, of which the tail is ſeven inches. The belly has two-hundred and eighteen large plates, and the tail fifty-two pairs of ſmall plates.

Sp. CXLII. *THE BROWN-SPOT VIPER* *.

Brown-ſpot Viper.

LITTLE more is known of this ſpecies than that it is ſpotted with brown. It has two hundred and two large plates, and ninety-

* C. orientalis. Syſt. Nat. ed. Gm. i. 1112. G. 125. Gronov. Muſ. n. 14. Zooph. i. 19. n. 93. Boddaert, nov. act. Caes. vii. 18. n. 2. Seba, Muſ. ii. t. 9. f. 4.

This and the following ſpecies, to Sp. 156 inclusive, are not included in the text of the original, though enumerated in the Syſtematic catalogue, from the Muſeum of Gronovius. But, as ſeveral other ſpecies are inſerted in the body of the work in the original, of which the deſcriptions are equally meagre with theſe, and the diſtinctive marks equally uncertain, the tranſlator has conſidered it proper to inſert them here in regular order. Beſides ſome additional information concerning ſeveral of them is here given, from the laſt edition of the Syſtem of Nature by Gmelin.—The whole that follows in this genus is added by the tranſlator.

ninety-six pairs of small plates *. It comes from India. Brown-spot Viper.

Sp. CXLIII. *THE WHITE-DOTTED VIPER* †.

THIS viper is brown above with small white spots, and whitish underneath. It has an hundred and ninety-one large plates, and seventy five pairs. White-dotted Viper.

Sp. CXLIV. *THE PIED VIPER* ‡.

THIS species is blackish; the sides being veriagated with black and white transverse stripes. It has an hundred and Pied Viper.

* A specimen quoted by Gmelin had only seventy-four pairs of small plates.—T.

† C. brunneus. Syst. nat. ed. Gm. i. 1108. G. 125. Gronov. Mus. ii. n. 15. Zooph. 20. n. 98. Boddaert, nov. act. Caes. vii. 18. n. 3. Seba, mus. ii. t. 2. f. 6.

‡ C. varius. Syst. Nat. ed. Gm. i. 1101. G. 125. Gronov. Mus. ii. 64. n. 28. Zooph. i. 23. n. 16. Boddaert, nov. act. Caes. vii. 21. n. 16.

Pied Viper.

ninety large plates, and an hundred and twenty-five pairs of ſmall plates *.

Sp. CXLV. *THE PURPLE VIPER* †.

Purple Viper.

THIS ſpecies is of a purple colour, with black ſpots; having an hundred and eighty-nine large plates, and an hundred and twenty-two pairs of ſmall plates.

Sp.

* There is ſome confuſion in the Syſtem of Nature in the quotations reſpecting this ſpecies of Gronovius; and the Syſtematic catalogue of our original gets likewiſe into a ſimilar error; both quote the ſame number of Gronovius for diſtinctly different ſpecies. See Caracaras, Sp. 150.

† C. purpuraſcens. Syſt. Nat. ed. Gm. i. 1116. G. 125. Gronov. muſ. ii. 311. n. 17. Boddaert, nov. act. Caes. vii. 19. n. 5.

Sp. CXLVI. *THE CEYLON VIPER* *.

ALL we know of this viper is that it comes from the Iſland of Ceylon. It is variegated with brown and white; having an hundred and eighty large plates, and eighty pairs of ſmall plates †. Ceylon Viper.

Sp. CXLVII. *THE ARABIAN VIPER* ‡.

THIS ſpecies is bluiſh aſh colour, on the upper ſurface, and blackiſh underneath; the back being waved with Arabian Viper.

* C. Zeylonicus. Syſt. Nat. ed. Gm. i. 1106. G. 125. Gronov. muſ. ii. n. 20. Zooph. n. 105. Boddaert, nov. act. Caes. vii. 20. n. 12. Seba, muſ. i. t. 100. f. 4.

† The Syſtem of Nature quotes a ſpecimen having 177 large, and 89 pairs of ſmall plates.

‡ C. Arabicus. Syſt. Nat. ed. Gm. i. 1102. and C. Gronovianus. Syſt. nat. ed. Gm. i. 1101. G. 125. Gronov. muſ. ii. 61. n. 22. Zooph. i. 22. n. 108. Boddaert, nov. act. Caes. vii. 24. n. 28. Seba, muſ. ii. 32. t. 33. f. i. Laur. amph. 75. n. 150.—Gmelin, in two following pages, quotes the ſame authorities for this ſpecies, making it thus two.—T.

Arabian Viper.

black, and having an arched black ſpot and another of white on each ſide of the hind head. It is found in Arabia, and has an hundred and ſeventy-four large plates, and ſixty pairs of ſmall plates.

Sp. CXLVIII. *THE PAINTED VIPER* *.

Painted Viper.

THIS ſpecies is blue, having a black line on each ſide. The muzzle is painted. The belly has an hundred and ſeventy-two plates, and the tail an hundred and forty two pairs.

Sp. CXLIX. *THE WHITISH VIPER* †.

Whitiſh Viper.

THIS ſpecies is whitiſh, with forty brown tranſverſe bars. The muzzle is round and blunt. The belly has an hundred

* C. pictus. Syſt. nat. ed. Gm. i. 1116. G. 125. Gronov. muſ. n. 23. Boddaert, nov. act. Caes. vii. 24. n. 29.

† C. ſubalbidus. Syſt. nat. ed. Gm. i. 1103. G. 125. Gronov. Muſ. ii. n. 25. Zooph. n. 111. Boddaert, nov. act Caes. vii. 20. n. 14.—Corba americana. Seba. muſ. ii. t. 21. f. 3.

hundred and sixty-five plates, and the tail seventy-five pairs. It inhabits America. Whitish Viper.

Sp. CL. *THE CARACAR**.

THIS species is variegated with bright colours. Both Gmelin and our author has got into confusion with regard to to this and the pied viper, Sp. 144. Both quote the same number from Gronovius to both species, and they interchange the numbers of the plates. Our author gives the present species 160—60, while Gmelin gives it 190—125. Our author gives the pied viper 160—70, and the present species 190—125. Caracar.

Sp.

* C. Caracaras. Syst. Nat. ed. Gm. i. 1117. G. 125. Gronov. Mus. ii. n. 28. Boddaert, nov. act. Caes. vii. 18. n. 4.—Caracaras. Seba, mus. ii. 69. n. 3. t. 68. f. 3.

Sp. CLI. *THE PALE-RED VIPER*.*

Pale-red Viper.

THIS viper is pale reddiſh brown, of different ſhades. It has an hundred and fifty-nine large plates, and forty-two pairs of ſmall plates.

Sp. CLII. *THE BLOTCHED VIPER*†.

Blotched Viper.

ALL we know of this viper is that it is white, with black ſtreaks and ſpots; having an hundred and fifty three large plates, and fifty pairs of ſmall plates.

Sp.

* C. rufeſcens. Syſt. Nat. ed. Gm. i. 1094. G. 125. Gronov. muſ. ii. n. 29. Seba, muſ. i. t. 33. f. 1.

† C. naevius. Syſt. nat. ed. Gm. i. 1095. G. 125. Gronov. muſ. ii. n. 34.

Sp. CLIII. *THE BLACK-STREAK VIPER.*

Black-streak Viper.

WE only know of this ſpecies that it is white, with black tranſverſe ſtreaks; having an hundred and forty-nine large plates and ſixty-three pairs of ſmall plates. It is omitted by Gmelin. Our author quotes Gronov. Muſ. n. 33.

Sp. CLIV. *THE THICK-TAILED VIPER*.*

Thick-tailed Viper.

THIS viper is bluiſh, or blue. The large plates are whitiſh, with black ſpots, and have a ſlight longitudinal furrow. The tail is thick in proportion to the body. It comes from Africa.

Sp.

* C. craſſicaudus. Syſt. Nat. ed. Gm. i. 1095. G. 125. Gronov. Muſ. ii. 67. n. 36. Zooph. n. 126. Boddaert, nov. act. Caeſ. vii. 21. n. 19. Seba, Muſ. ii. t. 35. f. 4.

Sp. CLV. *THE MIXED VIPER* *.

Mixed Viper.

WE give this trivial name to this little known ſpecies, from its being variegated with iron grey, blue, and white. It has an hundred and thirty-ſix large plates, and thirty-nine pairs of ſmall plates under the tail.

Sp. CLVI. *THE WAN VIPER* †.

Wan Viper.

THIS little known ſpecies is whitiſh, with very broad tranſverſe ſpots mixed with black and white. It has an hundred and thirty-five belly plates, and forty-two pairs of ſmall plates under the tail.

Sp.

* C. verſicolor. Syſt. Nat. ed. Gm. i. 1087. G. 125. Gronov. muſ. ii. n. 38.

† C. exalbidus. Syſt. Nat. ed. Gm. i. 1088. G. 125. Gronov. Muſ. ii. n. 39. Zooph. i. n. 129. Boddaert, nov. act. Caeſ. vii. 23, n. 24.

Sp. CLVII. *THE DOUBTFUL VIPER* *.

ALL we know of this viper, from Gronovius, is that it has an hundred and forty-one large plates, and twenty-four pairs of small ones †. Doubtful Viper.

Sp.

* C. dubius. Syst. Nat. ed. Gm. i. 1086. G. 125. Gronov. Mus. ii. n. 24. Seba, Mus. ii. t. 98. f. 1.

† This species and the following, to Sp. 162. inclusive, are altogether omitted in the original, both in the text and systematic catalogue: But, being exactly in the same predicament with the fifteen preceding species, are added by the Translator from Gmelins edition of the System of Nature: They are all from Gronovius.

Sp. CLVIII. *THE BLACK-AND-WHITE VIPER**.

Black-and-white Viper.

THIS ſpecies is white, with black ſpots; having an hundred and thirty-five large plates, and forty-eight pairs of ſmall plates.

Sp. CLIX. *THE PALE-BROWN VIPER* †.

Pale-brown Viper.

OF a pale brown colour, having black ſpots on the ſides. The belly has from an hundred and forty-nine to an hundred and fifty-four large plates, and the under ſide of the tail from forty-three to fifty-five pairs of ſmall plates.

Sp.

* C. leucomelas. Syſt. Nat. ed. Gm. i. 1090. G. 125. Gronov. Muſ. ii. 65. n. 39. Zooph. i. 21. n. 129. Boddaert, nov. act. Caeſ. vii. 22. n. 20.—Gmelin quotes the ſame numbers from Gronovius, for this and the wan viper, Sp. 156: But quotes a different number from Boddaert. The plates and ſhort deſcriptions differ.

† C. ſubfuſcus. Syſt. Nat. ed. Gm. i. 1094. G. 125. Gronov. Zooph. n. 123. Boddaert, nov. act. Caeſ. vii. 23. n. 25.

Sp. CLX. *THE PURPLISH VIPER* *.

Purplish Viper.

OF a pale purple colour, with black ſpots; having an hundred and forty-four belly plates, and twenty-two pairs of tail plates. Perhaps the ſame with the queen viper, Sp. 41. of this work.

Sp. CLXI. *THE UNIFORM VIPER* †.

Uniform Viper.

WE only know that the back of this viper is of a ſingle uniform colour; its ſides, as far as to the vent, being ſtreaked. It has an hundred and ſeventy-ſix large plates, and ſixty-ſix pairs of tail plates.

Sp.

* C. purpurans. Syſt. Nat. ed. Gm. i. 1096. G. 125. Gronov. Muſ. ii. 66. n. 35. Zooph. n. 124. Boddaert, nov. act. Caeſ vii. 21. n. 18.

† C. unicolor. Syſt. Nat. ed. Gm. i. 1103. G. 125. Gronov. Zooph. i. 22. n. 107. Boddaert, nov. act. Caeſ. vii. 24. n. 27.

Sp. CLXII. *THE SEBAN VIPER* *.

Seban Viper.

THIS little known ſpecies has two hundred and ſeventy-two large plates under the belly, and ſeventy pairs of ſmall plates on the under ſurface of the tail. Its colours are clouded or mottled.

Sp. CLXIII. *THE CLOTHO* †.

Clotho.

THIS ſpecies, which is found in the iſlands of Ceylon and Cuba, is introduced into the laſt edition of the Syſtem of Nature

* C. Sebae. Syſt. Nat. ed. Gm. i. 1118. G. 125. Gronov. Muſ. ii. n. 11. Seba, Muſ. ii. t. 199. f. 2.

† C. Clotho. Syſt. Nat. ed. Gm. i. 1086. G. 125. Seba, Muſ. ii. t. 93.—Cobra Clotho. Laurent. amph. 104. n. 228.

This and all the following ſpecies, to the end of the viper genus, are added by the tranſlator, from Gmelins edition of the Syſtem of Nature. They are, for the moſt part, better deſcribed and diſtinguiſhed than the preceding twenty-one ſpecies from Gronovius.

Nature by Gmelin, on the authority of Laurenti; who conſiders it as nearly allied to the cobra, and marks it as being venomous. The head is deſcribed as indiſtinct, probably becauſe of the ſame ſize and ſhape with the upper part of the body. The tail is extremely ſlender. The plates and ſcales are large and rounded; of a dark brown colour, with a few of them yellow. The plates under the throat have each a white ſpot on the middle. The numbers of its plates are unknown. Clotho.

Sp. CLXIV. *THE CROWNED VIPER**.

GMELIN has adopted this ſpecies on the authority of Laurenti, who ſeems to conſider it as allied to the Ceraſtes, or horned viper, Sp. 9, while Gmelin ſuppoſes it to reſemble the Bali, Sp. 36; it can- Crowned Viper.

* C. coronatus. Syſt. Nat. ed. Gm. i. 1088. G. 125. Seba, Muſ. ii. t. 105. f. 3.—Ceraſtes coronatus. Laur. amph. 83. n. 177.

Crowned Viper.

not be allied to both, as the former is venomous, and the other innocuous.

This ſpecies is extremely black, with white unequal ſpots and ſmall dots. It inhabits New Spain. The numbers of its plates are unknown.

Sp. CLXV. *THE ELEGANT VIPER**.

Elegant Viper.

THIS beautiful but venomous ſpecies is white, having a red croſs on its forehead, ſurrounded with red ſpots. A very narrow ſtripe runs along the middle of the back, which has three rows of red eye-like ſpots; and a ſingle row of red ſpots runs along each ſide. Its country and the numbers of its plates are unknown. Gmelin conſiders this and the three next following ſpecies as nearly allied to the chubby viper, Sp. 38 of this work, all of which he marks as

* C. elegantiſſimus. Syſt. Nat. ed. Gm. i. 1089. G. 125. Laur. amph. 96. n. 211. Seba, Muſ. i. t. 81. f. 9.

as venomous, and all depend entirely on the authority of Sebas muſaeum. Elegant Viper.

Sp. CLXVI. *THE JAVAN VIPER**.

GMELIN conſiders this as allied to the chubby viper, Sp. 38. and marks it as venomous. It inhabits the iſle of Java, but the numbers of its plates are unknown. Like the former it is white, with a tranſverſe brown red ſpot before the eyes, and a white bar acroſs them; a ſtripe runs along the middle of the fore part of the back from the top of the head; the middle and hinder parts of the back having rhombic ſpots, which are whitiſh in the middle. Javan Viper.

* C. javanus. Syſt. Nat. ed. Gm. i. 1089. G. 125. Laur. amph. 96. n. 212. Seba, Muſ. i. t. 10. f. 2.

Sp. CLXVII. *THE GROVELING VIPER* *.

Groveling Viper.

THIS American ſpecies is marked by Gmelin as venomous, and is conſidered by him as allied to the chubby viper, Sp. 38. The numbers of its plates are unknown. It is of a greyiſh yellow colour, with roundiſh ſpots on the back, and a row of ſmall ſpots on each ſide, which run together into a longitudinal ſtripe.

Sp. CLXVIII. *THE NEXA* †.

Nexa.

THIS ſpecies is found in Africa, and is venomous. It is of a brown red colour, having a double angular ſtripe on the back, the angles of which interſect and croſs

* C. ignobilis. Syſt. Nat. ed. Gm. i. 1089. G. 125. Laur. amph. 96. n. 213. Seba, Muſ. i. t. 72. f. 6.

† C. Nexa. Syſt. Nat. ed. Gm. i. 1090. G. 125. Seba, Muſ. i. t. 19. f. 7. Laur. amph. 97. n. 215.

croſs each other. The numbers of its plates are unknown. Gmelin conſiders this ſpecies as allied to the chubby viper, Sp. 38. Nexa.

Sp. CLXIX. *THE NEAPOLITAN VIPER**.

THIS venomous viper is found in Italy and Auſtria. Gmelin doubts if it be really a different ſpecies from the adder or common viper, Sp. 1. In number of plates, it agrees with the black viper, Sp. 4, very nearly; having an hundred and fifty-two large plates under the belly, and thirty-three pairs of ſmaller plates under the tail; the black ſpecies having only one pair fewer of the latter, and the ſame number of the former. Neapolitan Viper.

The head is covered with very ſmall ſcales. The body is marked by four rows of ſhort tranſverſe ſtreaks, oppoſite to the

* C. Redi. Syſt. nat. ed. Gm. i. 1091. G. 125. Aldrov. ſerp. 115. 116.—Vipera Redi. Laur. amph. 99. n. 218.—Otter. Meyer. Thiere. ii. 5. t. 16—18.

Neapolitan Viper.

intervals of each other, those of the two inner rows on the anterior part of the back running into each other. The head, under parts of the body, and tip of the tail, are brown red.

The Neapolitan apothecaries employ this species as an officinal in several preparations. Its bite is said to be very quickly mortal, unless counteracted by the sudden exhibition of a gummy solution of mercury, aided by a decoction of Gentian.

Sp. CLXX. *THE COBRA**.

Cobra.

THIS species seems intermediate, in the opinion of Gmelin, between the clotho, Sp. 163. and the one last described. Its country and the numbers of its plates are unknown.

The cobra is entirely brown. The body is compressed, or flattened, at the sides, with

† C. Cobra. Syst. Nat. ed. Gm. i. 1092. G. 125. Laur. amph. 103. n. 227.

with an elevated ridge, having larger scales, along the back. The head is elongated and rounded. Cobra.

Sp. CLXXI. *THE SPECKLED VIPER* *.

GMELIN considers this species as of kin to the Neapolitan viper, Sp. 169. The head is compressed at the sides, which are white, while the upper part is ash coloured, like the rest of the body, having a pale brown line on each side, which unite before the nostrils. The hind head has two three cornered spots. The back has three rows of eliptical spots, the middle row being larger than the others. All these spots are pale yellow with brown edges. Its country, and the numbers of its plates, are unknown. Speckled Viper.

* C. maculatus. Syst. Nat. ed. Gm. i. 1092. G. 125. Laur. amph. 102. n. 222.

Sp. CLXXII. *THE SKY-BLUE VIPER**.

Sky-blue Viper.

THIS viper is very common in the iſland of Martinique, and is conſidered, by Gmelin, as nearly allied to the Neapolitan, Sp. 169. It is of a pale blue colour, having indiſtinct cloudy ſpots on each ſide. Behind the eyes, on each ſide of the head, is a white ſtripe, edged with black underneath. The nape of the neck is ruſty. The numbers of its plates are not known.

* C. glaucus. Syſt. nat. ed. Gm. i. 1092. G. 125. —Vipera caeruleſcens. Laur. amph. 101. n. 221.

Sp. CLXXIII. *THE MADRAS VIPER* *.

THIS little known ſpecies, from Madras, is of a lead colour, reticulated with pale yellow lines croſſing each other. The numbers of its plates are unknown. Madras Viper.

Sp. CLXXIV. *THE BITIS* †.

THIS ſpecies inhabits Braſil, and is conſidered by Gmelin as allied to the Neapolitan, Sp. 169. The upper parts of the body are variegated with aſh colour, yellow, white, and red, having a ſeries of very minute white ſcales among the larger. The Bitis.

* C. madarenſis. Syſt. Nat. ed. Gm. i. 1092. G. 125. —Vipera madarenſis. Laur. amph. 102. n. 224. Seba, Muſ. i. t. 54. f. 2.

† C. Bitis. Syſt. nat. ed. Gm. i. 1092. G. 125. Seba, Muſ. ii. t. 16. f. 1. Laur. amph. 102. n. 223.

Bitis. The under surface is yellow, with transverse brown bars. The numbers of its plates are unknown.

Sp. CLXXV. *THE CUPREOUS VIPER* *.

Cupreous Viper. THIS viper is found in the Danish West India island of Santa Crux; where it is said to climb trees. It is of a copper red colour on the upper surface of the body, the ridges on the back scales being whitish. The under surface is yellow, with red spots. The numbers of its plates are not known.

Sp.

* C. acontia. Syst. nat. ed. Gm. i. 1093. G. 125. Seba, Mus. ii. t. 64. f. 1. Laur. amph. 102. n. 225.

Sp. CLXXVI. *THE CROTALIN* *.

THE trivial name of this ſpecies is derived from its having ſome reſemblance to the genus of Crotalus or Rattleſnake. It is of a large ſize, and the tail is about one ſeventh of the length of the body. The upper ſurface of the body is cinereous grey, with large indiſtinct blackiſh ſpots, oppoſite to the intervals of each other. The under ſurface is yellowiſh, ſprinkled with brown. The head is heart-ſhaped, with projecting ridges over each eye. The belly has an hundred and fifty-four large plates, and the under ſurface of the tail forty-three pairs of ſmaller plates. Its native country is not known. Crotalin.

Sp.

* C. crotalinus. Syſt. Nat. ed. Gm. i. 1094. G. 125. Mantiſſ. plant. alt. n. 123.

Sp. CLXXVII. *THE HALYS**.

Halys.

THIS ſpecies has an hundred and ſixty-four large plates, and thirty-four pairs of ſmall plates. It was found by the celebrated Pallas in the drieſt ſouthern deſerts of the kingdom of Aſtracan, where it is very rare. It is thicker, ſhorter, and of a more diſguſting appearance than the adder or common viper. The upper parts of the body are pale grey, with tranſverſe olive brown ſpots, which are ſmaller on the ſides. The under ſurface is pale or whitiſh. The back ſcales are ſomewhat ridged, very cloſe ſet, and briſtle out from the ſkin.

Sp.

* C. Halys. Syſt. Nat. ed. Gm. i. 1094. G. 125. Pall. it. iii. 703. n. 38.

Sp. CLXXVIII. *THE PANAMA VIPER**.

Panama Viper.

THIS viper, inserted in the System of Nature on the authority of Seba, was brought from Panama in Spanish America. It is bluish, the scales being of a large size. The belly has an hundred and sixty-four large plates, and the tail thirty-eight pairs.

Sp. CLXXIX. *THE SCARLET VIPER*†.

Scarlet Viper.

THIS species inhabits Florida and New Spain, growing to about three feet long, and only about the thickness of the little finger. From the beauty of its colours,

* C. panamensis. Syst. nat. ed. Gm. i. 1095. G. 125. Boddaert, nov. act. Caes. vii. 19. n. 7. Seba, Mus. ii. t. 66. f. 10.

† C. coccineus. Syst. Nat. ed. Gm. i. 1097. G. 125. Garden. Blumenbach.

Scarlet Viper.

lours, the skin is used by the natives for bracelets and collars.

The head is small, with a scarlet face, black ridges over the eyes, a yellow forehead, and the neck indistinct. The back has twenty-three scarlet spots, which are transversely oval, or somewhat four sided, having black edges, which are mostly interrupted on the sides. These spots are mixed with yellow lines, which are spotted with black. The under surface is whitish. It has an hundred and seventy-five plates on the belly, and thirty-five pairs of small plates on the under surface of the tail.

Sp. CLXXX. *THE SLIPPERY VIPER* *.

Slippery Viper.

THE number of plates in this species is unknown. It is long and slender, extremely smooth and shinning; of a white colour with black bars. Gmelin considers it

* C. lubricus. Syst. Nat. ed. Gm. i. 1101. G. 125. Laur. amph. 89. n. 164.

it as allied to the collared viper, or natrix, Sp. 29. The numbers of its plates are unknown. Slippery Viper.

Gmelin adds a variety of this ſpecies from Seba, which differs from this juſt deſcribed in having red bars *. The former variety, with black bars, is found in Surinam: The latter, with red bars, came from Africa.

Sp. CLXXXI. *THE FRIENDLY VIPER* †.

THIS ſpecies is found both in Amboina and New Spain. Its manners are ſaid to be gentle and inoffenſive, and even friendly to mankind, from which the trivial names here uſed are derived. It is of a black colour, ſpotted with white, the tail being tranſverſely barred with black and white Friendly Viper.

* C. lubricus. β. Syſt. nat. ed. Gm. i. 1101. G. 125. —Natrix lubrica. Seba, Muſ. ii. 43. f. 3.

† C. humanus. Syſt. nat. ed. Gm. i. 1001. G. 125. —Natrix humana. Laur. amph. 80. n. 165.

Friendly Viper.

white alternately. The numbers of its plates are not known.

Sp. CLXXXII. *THE SPECKLED VIPER* *.

Speckled Viper.

THE country and numbers of plates of this ſpecies are unknown. It is brown, with very minute white ſpots. The head is flattened, of a triangular form, the angles of the jaws being prominent, and is armed with broad ſcales. The muzzle is pointed. The body is ſmooth and ſhinning; thick in the middle, with a narrow neck, and ſlender tapering ſharp pointed muzzle. It agrees with the natrix, Sp. 29. in general form and proportions.

Sp.

* C. punctulatus. Syſt. nat. ed. Gm. i 1100. G. 125. —Natrix punctata. Laur. amph. 80. n. 166.

Sp. CLXXXIII. *THE TYROL VIPER* *.

Tyrol Viper.

NOTHING more is mentioned of the deſcription of this ſpecies, except the numbers of its plates, in which there is ſome error in the Syſtem of Nature. The general number of both kinds is ſtated as two hundred and thirty, the ſame with the natrix; yet the belly plates are ſet down as an hundred and ſeventy-eight, and the pairs of tail plates as ſixty: Probably the figure 8 is an error of the preſs.

It inhabits the Tyrol; where its eggs, uſually fourteen adhering together, are found lodged among ſtones. Theſe are deſcribed as white, with a leather-like membrane, having a turbid watery glair, with the yolk placed on one ſide.

* C. tyrolenſis. Syſt. Nat. ed. Gm. i. 1102. G. 125. Scop. Ann. hiſt. nat. ii. 39.

Sp. CLXXXIV. *THE AMBIGUOUS VIPER**.

Ambiguous Viper.

WHEREFORE this trivial name has been applied to the preſent ſpecies is not explained by Gmelin. Perhaps he conſidered it as allied to the naja, Sp. 10. with which it agrees in the general number of plates, but differs a little in particulars; having an hundred and eighty-nine belly plates, with ſixty-four pairs of ſmall plates under the tail; while the naja has 193—60. It inhabits America, growing to more than four feet and a half long. It is of a hoary or grey colour, with broad rounded brown bars. The under ſurface is paler than the upper, and is variegated with dark brown. It is venomous.

Sp.

* C. ambiguus. Syſt. Nat. ed. Gm. i. 1104. G. 125. Weigel, Naturf. geſ. i. 55.

Sp. CLXXXV. *THE UNCERTAIN VIPER**.

THIS venomous viper, from India, is thus named from its conſiderable reſemblance to the naja; from which it differs by wanting the ſpectacle like mark on the neck. It is of a yellowiſh brown red colour, each ſcale having a white ſpot. Uncertain Viper.

The ſynonimes quoted below, from Gmelins edition of the Syſtem of Nature, have been already noticed in the article naja, Sp. 10. being conſidered as the female of that ſpecies; but it is here placed ſeparate, on the authority of Laurenti and Gmelin.

* C. caecus. Syſt. nat. ed. Gm. i. 1104. G. 125. Seba, muſ. ii. t. 90. f. 1.—Naja-non-naja. Laur. amph. 92. n. 203.

Sp. CLXXXVI. *THE CASPIAN VIPER* *.

Caſpian Viper.

WE are indebted to Lepechin, one of the ſcientific travellers employed by the late Empreſs of Ruſſia to explore her vaſt dominions, for an account of this new ſpecies, which he found in the thickets and low meadows on the borders of the Caſpian Sea. It grows to more than five feet long; and, though in general afraid of mankind, attacks violently ſuch as diſturb or irritate it, erecting its head and hiſſing loudly.

The upper ſurface of the body is alternately barred with yellow and brown; having eighteen longitudinal rows of yellow ſcales with dark brown edges. The under ſurface is yellow. The eyes are prominently globular and pale brown. The jaws have two rows of ſharp teeth, but no poiſon fangs. The belly has an hundred and nine-

ty-

* C. caſpius. Syſt. Nat. ed. Gm. i. 1112. G. 125. Lepech. it. i. 317. t. 21.

ty-eight large plates, and the under surface of the tail an hundred pairs of small plates. Caspian Viper.

Sp. CLXXXVII. *THE RUDDY PETOLA* *.

THIS, and the seven following species, being considered by Gmelin as very nearly allied to the petola, Sp. 87. have here that specific name added to their distinctive trivial, to mark the connection. Most of them stand alone on the authority of Seba; and they all appear to be destitute of venom. In all of them the numbers of the belly and tail plates are unknown. Ruddy Petola.

The ruddy petola is found in India and China. It is of a ruddy colour, with scarlet eye-like spots; the large scales which cover the head being yellowish brown red.

* C. ocellatus. Syst. Nat. ed. Gm. i. 1113. G. 125. Seba, mus. ii. t. 1. f. 3. 8.

SP. CLXXXVIII. *THE YELLOW PETOLA* *.

Yellow Petola.

THIS ſpecies is yellow, having two darker bars; the head being brown red. It inhabits India. Gmelin quotes the ſame figure from Seba, for a ſpecies of a different colour, already deſcribed under the name of pale red viper, Sp. 151, the C. rufeſcens of the Syſtem of Nature, and Sp. 29. of Gronovius.

SP. CLXXXIX. *THE SPOTTED PETOLA* †.

Spotted Petola.

THIS ſpecies is all over ſpotted; the large plates which arm the top of the head being pure white. It was ſent from Amboina to the muſeum of Seba.

SP.

* C. Hitambocia. Syſt. Nat. ed. Gm. i. 1113. G. 125. Seba, muſ. i. t. 33. f. 6. Laur. amph. 85. n. 181.

† C. tigrinus. Syſt. Nat. ed. Gm. i. 1113. G. 125. Seba, muſ. ii. t. 15. f. 2.—Coronella tigrina. Laur. amph. 87. n. 187.

Sp. CXC. *THE MOUSING PETOLA**.

Mouſing Petola.

THIS American ſpecies feeds much on mice and ſuch ſmall animals, which it watches for like a cat. It is white, having ſeveral black ſpots conſiſting each of four contiguous ſcales.

Sp. CXCI. *THE CERVINE PETOLA* †.

Cervine Petola.

OF a white colour, the middle of the upper ſurface of the body being dotted with black, and the two extremities ſtreaked with the ſame. It inhabits America.

* C. Catus. Syſt. Nat. ed. Gm. i. 1114. G. 125. Seba, muſ. ii. t. 75. f. 1—5.—Coronella Catus. Laur. amph. 88. n. 192.

† C. cervinus. Syſt. Nat. ed. Gm. i. 1114. G. 125. Seba, muſ. ii. 79. f. 3.—Coronella cervina. Laur. amph. 88. n. 191.

Sp. CXCII. *THE VIRGINIAN PETOLA* *.

Virginian Petola.

OF a dark brown colour, with yellow bars; the top of the head being armed with large scales. It is found in Virginia.

Sp. CXCIII. *THE RED PETOLA* †.

Red Petola.

IS very dark red above, with spots which join together in pairs; the under surface being white. It is found in America.

Sp.

* C. virginicus. Syst. Nat. ed. Gm. i. 1114. G. 125. Seba, mus. i. t. 75. f. 3.—Coronella virginica. Laur. amph. 86. n. 183.

† C. ruber. Syst. Nat. ed. Gm. i. 1114. G. 125. Seba, mus. i. t. 52. f. 4.

Sp. CXCIV. *THE CHEQUERED PETOLA**.

THIS ſpecies is alternately chequered with black and brown. The under ſurface is black, with unequal white ſpots on the ſides. The head is longiſh, and is armed with large ſcales†. Chequered Petola.

Sp. CXCV. *THE CAIRO VIPER*‡.

FORSKAL deſcribes this ſpecies as found near Cairo in Egypt. It is of a grey colour above, having large oval brown Cairo Viper.

* C. teſſalatus. Syſt. Nat. ed. Gm. i. 1114. G. 125. —Coronella teſſalata. Laur. amph. 87. n. 188.

† In the Syſtem of Nature, this is ſaid to inhabit *Japidia*: Where that country is the tranſlator is to learn, unleſs *Japygia*, an ancient name of part of the modern kingdom of Naples, be intended.

‡ C. cahirinus. Syſt. Nat. ed. Gm. i. 1115. G. 125. Forſk. Faun. Arab. 14. n. 7.

Cairo Viper.

brown ſpots on the back, and notched ſomewhat ſquared ſmaller ſpots on the ſides. The under ſurface is an uniform ſilky white. The head is flattiſh and ſomewhat heart ſhaped, its top being armed with two oblong pale ſcales, twelve times larger than the others. It is four feet and a half long, and about the thickneſs of a mans thumb. An error of printing has crept into the Syſtem of Nature, reſpecting the number of plates in this ſpecies: They are thus expreſſed, 230—82, 302. But they muſt either be 220—82, 302, or 230—82, 312. The firſt number indicates the large plates on the belly; the ſecond is the number of pairs of ſmall plates on the under ſurface of the tail; and the third is the aggregate of both numbers taken together. Gmelin conſiders this ſpecies as allied to the Tyrie, Sp. 85.

Sp.

Sp. CXCVI. *THE YELLOWISH VIPER**.

Yellowish Viper.

THIS ſpecies is inſerted in the laſt edition of the Syſtem of Nature, by Gmelin, on the authority of Scopoli. It is of a brown colour above, with oval ſcales, and yellowiſh underneath. It inhabits the Tyrol, growing to the length of three feet; having two hundred and twenty-five plates on the belly, and twenty-eight pairs on the under ſurface of the tail.

SECOND

* C. flaveſcens. Syſt. Nat. ed. Gm. i. 1115. G. 125. Scop. Ann. hiſt. nat. ii. 39.

SECOND GENUS.

BOA.

Having large plates both under the belly and tail.

Boa.

AT the head of the former genus of vipers were placed the venomous ſpecies, which are the more dangerous, becauſe, continually diſtilling a mortal poiſon, they conceal their attacks rolled up in a ſpiral form, as if gathered into themſelves, to hide their preſence from their intended victims. Theſe attack ſuddenly and unexpectedly; and only ſucceed by the virulence of their ſecret venom, employing treacherous weapons, which wound inviſibly, and againſt which ſtrength and bravery are altogether unavailing.

We

We now proceed to treat of the boas, a more noble genus, the largeſt and ſtrongeſt of the ſerpent tribe; which, altogether deſtitute of venom, never attack but from neceſſity, always engage with open courage, and conquer only by ſuperior ſtrength; and againſt which courage may be oppoſed to courage, and ſtrength to ſtrength, on equal terms, without dread of meeting an unexpected and cruel death by the almoſt inſenſible puncture of an envenomed weapon. Boa.

The genus of boa is readily diſtinguiſhable from that of viper, by the under ſurface of the tail being covered by undivided plates like thoſe on the belly; while in the vipers all the plates below the vent are divided into pairs.

Sp.

Sp. I. *THE CONSTRICTOR* *.

Constrictor.

THIS enormous serpent certainly holds the first rank, in regard of size and force, both in the present genus, and in the whole

* Boa constrictor. Syst. Nat. ed. Gm. i. 1083. G. 124. Amoen. Ac. i. 497. t. 17. f. 3. Mus. Ad. Fr. i. 38. Boddaert, nov. act. Caes. vii. 18. n. 5.—Cenchris. Gronov. mus. ii. 69. n. 43. Zooph. 26. n. 134.—Constrictor formosissimus. Laur. amph. 107. n. 235.—L'Empereur. Seba, mus. i. t. 36. f. 5. & t. 53. f. 1. & t. 62. f. 1. 2. & ii. t. 77. f. 4. 5. & t. 98. f. 1. & t. 99. f. 1. 2. & t. 100. f. 1. & t. 104. f. 1.—Boiguacu. Ray. Synops. 325. Piso, Bras. iii. 41. Marcgrav. Bras. 219. —Le Devin. Encyclop. Method.

In the System of Nature, Gmelin gives the following as varieties, but without any distinctive marks; they are all considered as synonimes only in the original of this work.

β. Constrictor Rex. Laur. amph. 107. n. 236. Seba, mus. ii. 99. f. 1. & 104. f. 1.

γ. Constrictor auspex. Laur. amph. 108. n. 237. Seba, mus. i. t. 53. f. 1.

δ. Con-

whole order of ſerpents. In beauty, ſize, agility, ſtrength, and patient induſtry to wait for and ſeize its prey, it far ſurpaſſes every other ſpecies, and may well be named the king or emperor of ſerpents. It is however entirely deſtitute of that fatal venom which has occaſioned the whole order to be viewed as objects of terror. Like the elephant and lion among quadrupeds, the conſtrictor far ſurpaſſes all the animals of Conſtrictor.

δ. Conſtrictor diviniloquus. Laur. amph. 108. n. 238. Seba, muſ. ii. t. 100. f. 1.

The following names are given to this enormous ſerpent in different places. Xaxathua, Xalxalhua, in Mexico.—Tamacuilla huilia, in other parts of Spaniſh America.—Caçadora, or Hunting ſerpent, Couleuvre chaſſeuſe, on the Orenocco —Boiguacu, Jiboya, Giboya, Jauca-acanga, or Queen of ſerpents, by the natives of Braſil.—Manda, or King of ſerpents, in Java—Mamballa, Polonga, in Ceylon.—Giarende, Gerende, Gorende, Fedagoſo, Cobra de veada, by the Portugueſe.—Depone, in ſeveral countries.

In the original of this work it is called le Devin, but the Tranſlator thinks it beſt to conform in trivial names as much as poſſible to the Linnaean Syſtem of Nature. It is called Enormous Boa in the ſyſtematic catalogue.

Conſtrictor. of its kind, reſembling the elephant in ſize, and the lion in ſtrength and courage.

The conſtrictor for the moſt part exceeds twenty feet long; and, in comparing the accounts of various travellers, we ſhould probably refer to this ſpecies thoſe ſerpents of forty and fifty feet in length, which are found, as they relate, in burning deſerts where mankind can hardly penetrate.

Gronovius had the ſkin of a conſtrictor in his muſeum which meaſured ſix feet long; but he mentions having ſeen them of twenty feet long in other collections*. The famous ſea-worm of Norway, which, according to Olaus Magnus†, was more than two hundred feet long and twenty feet thick, muſt be conſidered as fabulous. George Anderſon, in his account of a voyage to India, mentions having ſeen ſerpents in Java large enough to ſwallow a man whole. Iverſon‡ relates, in his Indian voyage, having killed one twenty-three feet

* Muſ. 70. † Lib. xxi. chap. 43.

‡ Chap. 4

feet long. Baldeus*, in his deſcription of Ceylon, ſays that ſerpents are found there of eight, nine, and ten ells long; but that there are larger ſtill in Java and Banda, one having been killed which had ſwallowed a ſtag, and another that had ſwallowed a woman. Owen† ſays that there are ſerpents near Batavia of fifty feet long. Marco Paulo‡ ſays there are ſerpents in the iſland of Carajan ten paces long, and ten palms in thickneſs. Conſtrictor.

In the deſcription of Kirchers muſeum §, Braſilian ſerpents are mentioned of twelve and even forty palms long, which twiſt themſelves round a calf to cruſh its bones, and then ſwallow it whole, as common ſerpents ſwallow a toad. "This ſerpent has no venom, its mouth having only a number of ſmall teeth. The neck is narrow, and the body grows narrower again towards the tail. The whole body is covered with ſcales, diſpoſed in beautiful order;

* Chap. 22. † Nat. hiſt. of ſerpents, p. 15.
‡ Lib. ii. ch. 40. § Fol. 33.

Conſtrictor.

of which thoſe on the belly are larger than thoſe on the back. The colours are elegantly diverſified. The back, from the head to the end of the tail, is adorned with a continuous longitudinal row of blackiſh ſcutcheons, or ſquared ſhield like marks, which towards the tail become oval. The ſpots on the ſides are browniſh and like apple leaves."

Job Ludolph* mentions this or a ſimilar ſerpent; and ſays "that it is the ſame of which Pliny writes †, under the name of *Boa*, on account of ſucking the milk from cows." Hieronimus, in his life of Hilarion, ſays "that a dragon of enormous ſize, *Draco*, which is named Boas by the Greeks becauſe it is ſo large as to ſwallow oxen, laid waſte the whole province."

Gumilla, in his Natural Hiſtory of Oronocco ‡ ſays, "that the ſerpents called Caçadores or Hunters are as large as the Bujos, which are about eight yards long, but are

* Comment. ad Hiſt. Æthiop. 166.

† Lib. viii. cap. 14. ‡ iii. 75.

are ſeveral yards longer than theſe. It is aſtoniſhing with what ſwiftneſs they follow their prey, which can never eſcape when once ſeen and purſued." Conſtrictor.

"In the kingdom of Congo * there are ſerpents of twenty-five feet long, which can ſwallow a whole ſheep. They uſually lay themſelves out in the ſun, after a good meal, to aſſiſt digeſtion; and, when diſcovered, the negroes cut off their head and tail, and eat the body, which they uſually find as fat as a hog."

Artus † relates, "That the ſerpents on the Gold Coaſt of Africa are uſually twenty feet long, and five or ſix in thickneſs, probably circumference, but are found conſiderably larger. He mentions having ſeen one, which, though only three feet long, was ſtrong enough to contend againſt ſix men." Boſman ‡ enlarges on the number and ſize of the ſerpents on the weſtern

* Collect. Acad. part. etrang. ii. 485.

† Hiſt. Gen. des Voy. xiv. 213.

‡ Ibid. xiv. 214.

Conſtrictor.

coaſt of Africa. The largeſt, he ſays, was not under twenty feet long; but, he ſays, much larger ones are found more inland, and the Dutch often find within them the bodies of conſiderable animals, and even of men, quite whole. The negroes of Axim killed one in which was found the whole carcaſs of a deer; and another was killed at Boutri containing the remains of a man whom he had devoured. Several ſerpents of the kingdom of Kayor, are ſaid to be twenty-five feet long, by eighteen inches diameter *. On the river Kurbali, in Africa, ſerpents are ſaid to be found of thirty feet long, which are capable of ſwallowing an ox †.

In the Molucca iſlands, according to the general hiſtory of voyages ‡, there are ſerpents of thirty feet long, and proportional thickneſs. Theſe creep rather heavily, and have no venom. When in want of prey, they are ſaid to eat of a certain plant, after which

* Hiſt. Gen. des Voy. vii. 460.

† Ibid. v. 2 ;9. ‡ Ibid. xxxi. 199.

which they climb trees by the ſhore, and diſgorge into the ſea, what they have ſwallowed. This being eaten by the fiſh, renders them ſtupid, and they float on the ſurface, where they fall an eaſy prey to the ſerpent. Conſtrictor.

In the environs of the great river Amazons *, there is a very large amphibious ſerpent, named yacu-mama by the Indians, or mother of the water, which is twenty-five or thirty feet long, and which is ſaid principally to frequent the great inland lakes formed by the inundations of the river.

The ſerpent mentioned by Pliny † as having ſtopped the army of Regulus at the river Bagrada, and killed a number of ſtragglers, was probably of this ſpecies. He ſays that it was an hundred and twenty feet long, and required the engines uſed commonly in ſieges to deſtroy it. This vaſt ſize is ſurely an exaggeration; yet Pliny aſſures us that its ſkin remained a long

* Hiſt. Gen. des Voy. liii. 445.

† Lib. xxvii. cap. 14.

Conſtrictor.

while afterwards in one of the temples at Rome.

The head of the Conſtrictor has ſome reſemblance to that of a dog. The top is prominent, having an elevated front, which is divided by a longitudinal furrow; the orbits are projecting, with very large eyes; the muzzle is long, and ends in a large and almoſt vertical whitiſh ſcale, ſpotted with yellow, the under part of which is notched to allow a paſſage for the tongue. The opening of the throat is very large, and is capable of vaſt expanſion. The teeth are very large, but there are no poiſon fangs. The top of the head is covered with ſmall ſmooth hexagonal ſcales, exactly like thoſe on the back: The lips are covered with large ſcales, of which there are uſually forty-four on the upper lip and fifty-three on the lower. The large plates on the belly, of which there are uſually two hundred and forty-ſix*, are ſhorter in proportion than in moſt

* The Syſtem of Nature, as edited by Gmelin, gives 240—60 as the number of plates; but quotes two other numbers,

most serpents. The tail is short in proportion to the body, being usually about a nineth part of its length, but is very stiff and strong, and has fifty-four plates on its under surface. Constrictor.

The constrictor is almost as much distinguished by the beauty of its scales and fineness of its colours as by its prodigious size; but these splendid ornaments are soon tarnished after death, and disappear sooner or later according to the manner in which specimens are preserved: Hence it has been so very differently described in different authors, and so variously represented by engravings, that nine different species have been supposed of a single one. Besides this alteration from keeping, the constrictor is liable to considerable variations in colour, according to the difference of climate, and probably from age and sex, and other circumstances; on which account it would

numbers, 248—60, and 242—30, both different from our original.—T.

Conſtrictor.

be needleſs to deſcribe theſe colours minutely.

It has uſually a large black or very dark brown ſpot on the head, which frequently is in form of a croſs; but of which the croſs bar is ſometimes wanting, leaving only a longitudinal ſtripe of ſome length, from the nape of the neck almoſt to the tip of the muzzle. The whole upper part of the back has a number of large and beautiful oval ſpots, two or three inches long, which are uſually ſemicircularly notched at each end. Around theſe there are a number of ſmaller ſpots of different forms. All theſe ſpots are ſo regularly diſpoſed, and ſo finely relieved and ſhaded off by darker edges, as more to reſemble the production of art than nature. The large oval ſpots are uſually tawny, with a golden hue; ſometimes black or red, with white edges. The other ſpots are moſtly cheſnut coloured, of different brightneſs; or very bright red, covered all over with black or brown dots; and often produce in ſeveral places thoſe brilliant eye-

like

like ornaments which are ſo much admired on the tails of peacocks and the wings of ſome kinds of butterflies. The under ſurface of the body is yelloviſh aſh-colour, ſpotted or marbled with black. Conſtrictor.

We rarely find, in collections of natural hiſtory, any perfect ſpecimens of this vaſt ſerpent; but moſt cabinets have the ſkin, uſually without the belly plates, and for the moſt part ſtretched out flat. Theſe are differently named in collections, according to their ſize, the countries from whence they came, the diverſity of their colours, or the differences obſervable in the ſmall ſpots which ſurround the large ones. But, whatever be theſe differences, from age, ſex, or climate, theſe large and beautiful ſkins ought all to be referred to the preſent ſpecies; as we hitherto know no other ſerpent of conſiderable ſize having its back ornamented with theſe large oval ſpots.

When we conſider the enormous ſize of this ſerpent, we cannot be ſurpriſed at the prodigious ſtrength which it is capable to exert.

Constrictor. exert. Besides the vast force of its muscles, it is easy to conceive that this serpent, sometimes thirty feet long, may readily suffocate and crush to mummy very large animals, in the numerous folds of its body, of which every point is capable of acting and of being closely applied to the surface of its prey.

From its enormous size and vast force, combined with the brilliancy of its scales and beauty of its colours, this species has been viewed with a degree of admiration mingled with dread, by several half savage nations, who have considered it as a supernatural or divine agent. Whether considering that, with so vast a bulk and prodigious force, performing such rapid motions, it must be endowed with a divine power, or that there were indications of its being an agent of the Almighty, the ancient Mexicans certainly held the constrictor in religious veneration. The name by which it was distinguished in Mexico, signified Emperor, as an indication of the superiority

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of its powers and properties. Every circumſtance reſpecting it was watched with particular attention. Its long and violent hiſſings were liſtened to with religious horrour, and were conſidered as divine indications of their own deſtinies. Theſe hiſſings having been accidentally obſerved, or pretended, to be more frequent and more violent before ſtorms or peſtilent diſeaſes or wars or other public calamities, were ſuppoſed by the Mexicans to announce great misfortunes, and were conſequently heard with univerſal conſternation. Theſe great phyſical evils being often preceded by violent heat or extreme drought, or ſome other peculiar ſtate of the atmoſphere, ſuch as an overabundance of electrical fluid, may have ſuch effect on the feelings of this ſerpent as to make it hiſs more violently and oftener than uſual. Conſtrictor.

Unfortunately the ſuperſtition of the Mexicans was not confined merely to abſurd objects of worſhip and ſilly obſervances. The image of the ſerpent was not only

Conſtrictor.

only venerated amid the ſmoak of incenſe, but rivers of human blood were ſhed in honour of their gods, whom they conſidered as the cruel tyrants of the human race. Their ſupreme god, named Vitzilipuztli, was repreſented with a ſerpent in his right hand, and all his temples and altars were filled with repreſentations of ſerpents, which we have reaſon to ſuppoſe were intended as images of the conſtrictor *.

It is impoſſible to contemplate without ſhuddering the immenſe numbers of human victims, which were ſlaughtered by a blind and barbarous fanaticiſm †, on the altars of a deity, which it had imagined to be cruel, and gratified by their ſanguinary rites. We read with horrour of the heaps of human heads and bones, which were

* Hiſt. Gen. des Voy. xlviii.

† The hiſtory of religious wars and perſecutions, in our old and more civilized world, in pretended honour of the prince of peace, does not convey a leſs horrifying picture of a barbarous and ſanguinary chriſtian prieſthood.

were found by the Europeans around the temples, where this ſerpent was worſhipped. Conſtrictor.

In every country, it requires a long time for reaſon to gain the victory over ſuperſtition; and America is not the only place in which this ſerpent has received divine honours. Equally large, powerful, and dangerous in Africa, it has there inſpired the ſame terrors, and has been equally conſidered, by minds too little raiſed above the level of the brutes, as the ſovereign deſpenſator of good and evil. The conſtrictor is as much conſidered a God on the burning coaſts of Mozambique, as formerly on the lake of Mexico; and it would even appear that the Japaneſe proſtrate themſelves before it.

Though religious abſurdities have not raiſed the conſtrictor to the rank of divinity, in all the equatorial regions, there is hardly any of them in which it has not exerciſed the dominion of force over other animals. It inhabits almoſt every country, where there

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Constrictor. is sufficient heat to preserve its powers in full activity, or abundance of prey for its support, or enough of room to enable it to withdraw from the pursuit of its enemies. It is found in India, the large islands of the Indian ocean, and the warmer parts of America between the tropics.

Perhaps the serpent described by Brown *, under the name of *Cenchris tardigrada major lutea, maculis nigris notata, cauda breviori et crassiori*, and named yellow snake by the English, may belong to this species. It grows to the length of sixteen or twenty feet; and has perhaps got the appellation of slow-paced, *tradigrada*, from having only been seen when gorged with food, or near the commencement of its torpid state.

It would appear that this species was, in former times, to be found in countries considerably

* Nat. Hist. of Jamaica, p. 461.

siderably removed from the equator, particularly in Pontus, when that country was more woody, more marshy, and less peopled than now, and offered it more room and a more fit residence*. The writings of the ancients give a wonderful account of the poisonous breath of this serpent of Pontus, which occasioned birds to fall even from a considerable height into its enormous mouth. This singular circumstance could only have been occasioned by the corrupted breath of the serpent, which vitiated the air to a small distance, impregnating it with putrid and deleterious exhalations, and might stupify the birds, destroy their strength, and throw them into a kind of faint, by which they were made to fall into the vast mouth open to receive them. However this fact may have been exaggerated by Metradorus, it indicates the great size of the serpent to which it is attributed, and confirms our conjecture that it must have been of this present species. Constrictor.

Pliny

† Metradorus, as cited by Pliny, Lib. xxviii. cap. 14.

Conſtrictor.

Pliny likewiſe relates that, a very ſhort while before his own time, in the reign of Claudius, a very large ſerpent of the Boa tribe had been killed near Rome, in the belly of which the body of an infant was found. We have often heard, from ſeveral inhabitants of the ſouth of France, that in ſome places of theſe provinces which are much covered with wood, rendered difficult of approach by ſteep and rugged hills and rocks, and full of caverns, ſerpents of conſiderable length are ſometimes ſeen, which perhaps belong to this ſpecies, or at leaſt to the genus of boa.

In the Natural Hiſtory of the Reptiles of Sileſia by Schwenckfield, it is ſaid, on the authority of a perſon of credit, that there are ſerpents in that country of eight cubits or twelve feet long, and as thick as a mans arm *. We are likewiſe told † by Offredi, that

* He gives this ſerpent the following names: Boa, Natrix domeſtica, Serpens paluſtris, Serpens aquatilis, Anguis boa, Draco ſerpens.

† Miſcel. cur. nat. Vindob. 1682. Dec. ii. p. 217.

that a ſerpent was caught, about an hundred years ago, near Lauſanne in Switzerland, which was equal in thickneſs to two large thighs. This account adds, that the ſerpent was a monſter, and had ears; and it is remarkable that all the vague accounts we have of large ſerpents, in the ſouthern provinces of France, give them ears, although it is certain that no ſpecies of ſerpent is even provided with any external opening to the auditory organ. Conſtrictor.

In the burning deſerts of Africa, where the conſtrictor enjoys an untroubled reign, it attains the greateſt ſize. It is frightful even to read in the accounts of travellers, who have penetrated into theſe diſtricts, the manner in which it is ſeen advancing among buſhes and long graſs. Often eighteen inches diameter, and reſembling the trunk of a large tree moving ſwiftly along, it may be diſcovered at a diſtance, by the motion of the plants which yield to its courſe, leaving a large furrow which follows all the undulations of its courſe. Whole herds of

Conſtrictor. antilopes, and other animals on which it preys, are ſeen flying before it; and the only poſſible means of eſcape from its murtherous jaws is by ſetting fire to the graſs. This ſoon covers an immenſe expanſe of country with fire, as the graſs and other herbs are already almoſt half burnt by the heat of the ſun, and rears an impenetrable rampart againſt the purſuit of the vaſt ſerpent.

The conſtrictor is not ſtopped in its courſe by rivers, or large arms of the ſea, and can even ſwim with eaſe in the midſt of rough waves. It can likewiſe eaſily mount to the top of the higheſt trees; where, fixing itſelf by the folds of its body to the boughs, it often lies a long time concealed, waiting patiently for ſome prey to paſs underneath. When that is at too great a diſtance, or it wiſhes to reach a neighbouring tree, it twiſts its tail round a branch, and, balancing its extended body to that fixed point, ſprings forwards with prodigious force, and with the ſwiftneſs of an arrow, either againſt its deſtined

deſtined victim, or into the tree it wants to fix itſelf to. Conſtrictor.

Father Montoya* relates that, in Paraguay, there are ſerpents named hunters, which climb trees to look out for prey, and which ſpring upon their prey, when it approaches, and ſwallow it alive; but, when they ſwallow large animals, become ſo heavy that they lie ſtill and can no longer creep. He ſays that he once ſaw one, having the head as large as that of a calf, catching fiſh at the ſide of a river. It firſt diſcharged a quantity of froth into the water, next plunged its head below the water, where it remained motionleſs for ſome time, and then ſuddenly opened its mouth to ſwallow a quantity of fiſh, which the froth ſeemed to have drawn together. The ſame perſon ſays he ſaw a tall Indian, who was in the water up to his middle fiſhing, ſwallowed whole by a ſerpent, which vomited him again on the following day.

The conſtrictor ſometimes retires to caves

* Hiſt. Gen. des Voy. iii. 78.

Conſtrictor.

in the mountains, where it can more eaſily evade the attacks of enemies, or on purpoſe for ſhelter in cold weather, or during the rainy ſeaſon. In Guiana, it is known by the name of the great ſnake, *grande couleuvre;* and often reaches the length of thirty feet, ſometimes even forty. But, as the above name is given, in that country, to every large ſerpent of great ſtrength without venom, we are often at a loſs to determine, among the facts related by travellers, thoſe which properly belong to this ſpecies. It is certain, however, that the conſtrictor has vaſt force, as a ſingle ſtroke from its tail is ſufficient to overthrow animals of conſiderable ſtrength and ſize, and even the ſtrongeſt men. It has been ſeen to ſwallow goats and cougars, after breaking their bones. In India, it ſometimes devours even larger and better armed animals, ſuch as porcupines, deer, and bullocks.

Cleyerus, in a letter from Batavia to Mentzelius *, ſpeaking of certain ſerpents, evidently

* Ephemerid. cur. nat. Nuremb. 1684. Dec. ii. p. 18.

evidently of this ſpecies, ſays, "Theſe ſerpents are above twenty feet long, and are capable of ſwallowing animals of conſiderable ſize. I bought one of them from a hunter, for diſſection, in the ſtomach of which I found a middle aged ſtag quite entire: In another, I found the body of a wild he goat, which had been ſwallowed notwithſtanding its large horns; and in a third, I found a porcupine with all its quills. A woman big with child was ſwallowed quite whole, ſome time ago, by one of theſe ſerpents, in the iſland of Amboina." Pliny*, on the authority of Megaſthenes, mentions ſerpents in India of ſuch ſize as to ſwallow entire carcaſſes of deer and bulls. Conſtrictor.

When the conſtrictor is approached by a large animal, he attacks it with inconceivable rapidity, enveloping it in the folds of his enormous body, which he contracts with ſuch immenſe ſtrength as to cruſh its bones in pieces. Unable to eſcape, or to uſe its natural powers and arms in its de-

* Lib. xxviii. cap. 14.

Conſtrictor.

fence, the miſerable victim is ſoon ſuffocated by the efforts of the ſerpent. Should the dead animal be too large for the vaſt and expanſile throat of the conſtrictor, he continues to ſqueeze and cruſh it in every direction; and, for that purpoſe, drags it to a large tree, around which he winds himſelf, including the carcaſs, and redoubles his efforts to cruſh it into a ſize and ſtate fit for being ſwallowed. In the letter juſt cited, Cleyerus ſays the noiſe of cruſhing and cracking the bones of a buffalo has been heard at the diſtance of a good cannon ſhot.

After reducing his prey to mummy, he ſmears it over with ſaliva, and then ſwallows it, beginning at the head. Yet, in ſpite of all the previous preparation, his prey is ſometimes ſo large that he cannot get it all over, until a part has been diſſolved by digeſtion. The conſtrictor is therefore often found in a half torpid ſtate*, with

* Laurenti, Specimen Medicum.

with its mouth and throat wide open, and distended by a half swallowed carcass. Constrictor.

After satisfying its ravenous appetite, the constrictor loses for some time its power and activity, and falls into a kind of sleep or torpor, during which its enormously stuffed body remains altogether motionless, often for five or six days. Making every allowance for exaggeration, this sleep must be extremely profound, as we are told of travellers, in the isthmus of Darien, having walked over the body of a sleeping constrictor, and even rested upon it, which they had mistaken for the trunk of a fallen tree, laying half concealed among the long grass.

In consequence of this long state of torpor, some travellers have alleged that the constrictor sometimes choaked itself by swallowing too large a morsel. The inhabitants of those countries, where this vast serpent is found, choose this state of torpor for attacking it; as, though not venomous, it is extremely destructive to domestic animals or beasts of chase. They either wait

Conſtrictor.

till it has gorged itſelf, or tie ſome large animal near its retreat for that purpoſe; and, when it is filled, and in a ſtate of inſenſibility, they attack and kill it without danger.

The inhabitants of Java, the negroes of Guinea, and ſeveral others, eat the fleſh of the conſtrictor, and conſider it as both wholeſome and excellent food *. In ſome countries, particularly in Mexico, the inhabitants uſe the ſkin of this ſerpent for dreſs and ornament. In ancient times, when monſters of various kinds laid waſte the different regions of our continent, and when human art only began to aſſume the empire of nature, many heroes carried about in triumph the ſkins of ſerpents which they had killed: Theſe were probably of this ſpecies, or at leaſt of the ſame genus.

The following relation, from Diodorus Siculus, of the capture of a large ſerpent in Egypt, during the reign of one of the Ptolomies, and which was probably a conſtrictor,

* Hiſt. Gen. des Voy. xiv. 213.

tor, may be very properly inserted here *. Constrictor.

"Encouraged by the munificence of Ptolomy, several hunters determined to carry one of the largest serpents to the king at Alexandria. The one they pitched upon was above thirty cubits long, and frequented the borders of a lake, where it usually lay on the ground motionless, and coiled up in a circle; but when ever any animal came near, it attacked suddenly, seizing it with its teeth, or surrounding it in the folds of its body.

The huntsmen, having discovered the serpent at some distance, imagined that they should easily catch it in a noose, and meant then to secure it with chains. They advanced at first very courageously; but, on a nearer approach, were very much frightened by its fierce and terrible aspect. They drew near, however, with great caution, and

* This account, in the original, is placed in a note; but the Translator has preferred inserting it, and many other extracts, into the text, as more convenient for the reader.

Conſtrictor.

and endeavoured to catch its tail in the nooſe of a ſtrong rope. But the moment the ſerpent felt the rope, it turned about with fury, hiſſing violently, devoured the neareſt hunter, killing another with a ſtroke of its tail, and all the reſt took to flight. The remaining hunters, ſtimulated by the proſpect of reward, made a new attempt, by means of a net formed of very ſtrong ropes. Taking advantage of the abſence of the ſerpent from its hole, they ſtopped up the entrance with ſtones, and placed their net in the paſſage. On its return to its hiding place, they ſuddenly ſurrounded it at ſome diſtance, with a number of men, ſome on horſeback, ſome armed with bows and ſlings, and others making a great noiſe with trumpets and other loud inſtruments. The ſerpent erected itſelf in a menacing poſture, and terrified the ſurrounding multitude with its frightful hiſſings; but alarmed at its aſſailants, and by the barking of a number of dogs, and the noiſe of the warlike inſtruments, it endeavoured to gain

its

its retreat, and fell into the net, which was too ſtrong for all its efforts. Being thus caught, and ſecured with a number of chains, it was carried to Alexandria alive, where its natural ferocity was greatly leſſened by long faſting." Conſtrictor.

In the Natural Hiſtory of Congo, Angola, and Benguela *, "Lopez mentions prodigious ſerpents, which are ſometimes twenty-five ſpans long by five in breadth, and which have ſo vaſt a mouth and ſtomach as to be able to ſwallow a deer quite whole. Their name, in the language of the negroes, is the great hydra, or great water ſerpent. It lives much in the water, but ſeeks its prey on land. It often mounts a tree, from which it watches the approach of cattle; and when one comes within reach, it drops upon it, twiſts about its body, by which it is rendered unable to reſiſt, then kills it with its teeth, and, drawing the carcaſs to ſome retired place, devours it at its leiſure, ſkin, bones, horns, and all.

When

* Hiſt. Gen. des Voy. xvii. 249.

Conſtrictor.

When gorged, it falls into a kind of ſtupor, or ſleep, which continues for five or ſix days, and is ſo extremely profound that even a child may then kill it in ſafety."

"This dangerous ſerpent changes its ſkin at the ſame ſeaſon with other kinds, uſually ſoon after having gorged itſelf exceſſively. Theſe caſt ſkins are ſometimes found in the woods, and are then ſhewn about as curioſities. When the natives ſet the woods on fire, they often find a number of theſe ſerpents roaſted to death, and they never fail on theſe occaſions to feaſt deliciouſly, as they prefer the fleſh of theſe ſerpents even to poultry."

The account of Lopez is confirmed by Carli *, who relates, "That walking in the woods near Kolumgo, ſome negroes obſerved a large ſerpent ſwimming acroſs the river Quanza. They endeavoured to make him turn back, by ſhouting and throwing lumps of clay, as there are no ſtones in the country, but all to no purpoſe, as in ſpite of

* Hiſt. Gen. des Voy. xvii. 249.

of all their efforts, he landed and took up his abode in a ſmall thicket near the houſe. This ſerpent is often twenty-five feet long, and as thick as the body of a foal. It makes but one mouthful of a ſheep; and, as ſoon as it has filled its maw, extends itſelf in the ſun to aſſiſt digeſtion. The negroes are at great pains to diſcover it in this ſtate, as it is then eaſily killed; and they feaſt upon its fleſh, rejecting only the ſkin, tail, head, and intrails. This ſeems the ſame ſerpent which, according to Dapper, is named Embamma in Angola, and Minia by the Quojas, and which is ſo large as to ſwallow a whole goat or even an entire deer. It lies in wait near the roads, reſembling a dead tree, and throws itſelf with great nimbleneſs on the paſſengers, whether men or animals." Conſtrictor.

The conſtrictor changes its ſkin ſoon after the rainy ſeaſon; probably becauſe it is then injured by famine, by the action of the atmoſphere, by rubbing againſt hard bodies, or by other external cauſes. Until the new

ſkin

Conſtrictor. ſkin becomes hardened, and capable of defending it from injury, it uſually remains concealed in the thickeſt parts of the woods, or in deep caverns. As this ſpecies is only found near the tropics, where the rainy ſeaſon never produces a temperature ſufficiently cold for ſuſpending its vital functions, we believe the conſtrictor never hybernates, like the ſerpents of our colder regions.

As the rainy ſeaſon varies conſiderably, in the different equatorial countries of the three great continents, according to the height and ſituation of the mountains, the prevailing winds, and various other cauſes, the ſeaſon in which the conſtrictor changes its ſkin muſt neceſſarily be different accordingly, ſeveral months, and even half a year in ſome places. But always, when the vernal ſun reſtores activity to nature, the conſtrictor, renewed as it were in its youthful vigor, covered with a new ſkin, more active and more ardent than at other ſeaſons, iſſues from the retreat in which it has put

off

off its old covering: Moving its enormous body in wavey folds, it advances with eyes on fire through the woods, now adorned with freſh verdure, its head erected, and, expreſſing the ardour of deſire by amorous hiſſings, it ſearches impetuouſly for a mate, with which it unites ſo cloſely as to ſeem but one body. The fury with which the conſtrictor attacks ſuch as diſturb its pleaſures, and the perſeverance with which it continues united with the female, in ſpite of blows and wounds, evince the ardour of its union. Yet this is of ſhort endurance: The male and female ſoon ſeparate, and meet no more for that ſeaſon. After ſome time, but of which the length is unknown, the female depoſites her eggs in the ſand, or under the leaves of trees. She does not hatch them, but leaves them entirely to the heat of the atmoſphere; or, at moſt, in certain countries, eſpecially ſuch as are extremely damp and conſequently leſs warm, ſhe places them under ſhelter, and where the putrefaction of vegetable ſubſtances may

Conſtrictor.

aſſiſt

Conſtrictor. aſſiſt the heat of the atmoſphere. The period in which the eggs are hatched is unknown.

This enormous ſerpent affords a ſtriking example of great difference in ſize between the egg and the animal, when full grown, that comes from it. The eggs of the conſtrictor do not exceed two or three inches in their largeſt diameter; and, conſequently, the whole ſubſtance in which the fetus is enveloped is only a few cubic inches; while the ſerpent, at its full growth, contains at leaſt forty or fifty feet of ſolid ſubſtance. The great difference, between the ſize of the young ſerpent, as contained within the egg, and the vaſt bulk of the full grown animal, is an argument for ſuppoſing that it lives a great number of years. And this idea is confirmed by the circumſtance of this ſerpent being equally tenacious of life with moſt other ſerpents, as the various parts of its body retain certain vital motions after they are ſeparated from the reſt of the body. We have been aſſured

assured, by the Baron de Widerspach, a correspondent of the royal cabinet, and by several others who have travelled in South America, that when the head of the constrictor has been cut off, while in the act of biting with great fury, it has continued for some time to hold fast its prey, even more strongly than before; and that, after the contraction of the muscles ceased to operate, it required great force to open the jaws. Constrictor.

Sp. II. *THE HIPNALE* *.

ALTHOUGH of the same genus with the last described species, having large plates both on the belly and under the tail, this serpent is vastly inferior both Hipnale.

* B. Hypnale. Syst. Nat. ed. Gm. i. 1083. G. 124. Mus. Ad. Fr. ii. 41. Seba, Mus. ii. t. 34. f. 2.—Boa flavescens. Boddaert, nov. act. Caes. vii. 17. n. 4.—Boa exigua. Laur. amph. 89. n. 195.—Hipnale. Encyclop. Method.

Hipnale. in ſize and ſtrength to the preceding. Moſt of the ſpecimens of this ſpecies, that have been preſerved in collections, are ſcarcely an inch and a half in circumference, and two or three feet in length. The ſpecimen in the royal cabinet is twenty-three inches long, of which the tail meaſures three inches.

The hipnale is yellowiſh white, with ſomewhat of a reddiſh tinge, the under parts of the body being paler than the back. Seba ſays that there are ſome blackiſh ſpots on the under ſurface; but there are no appearance of theſe on the ſpecimen in the royal collection, which is preſerved in ſpirits. The back has a number of white ſpots, edged with dark brown, almoſt black. Although irregularly diſpoſed, yet theſe ſpots produce a fine variegation, reſembling in ſome meaſure a rich embroidery. According to Seba, the female only differs from the male in having a larger head. In both the head is tolerable large, but not diſproportionate to the body. The edges

of

of the mouth in ſeveral ſpecies of this genus, and very obſervably in this, have a very remarkable border, compoſed of large and very much curved ſcales, which are concave outwardly, forming a hollow channel all round the outſide of the lips. The belly has uſually an hundred and ſeventy-nine plates, and the under ſurface of the tail an hundred and twenty. The ſcales on the head are ſimilar to thoſe on the back, but the top of the muzzle has fourteen ſcales a little larger than the reſt. Hipnale.

The hipnale is found in Siam, where it feeds on caterpillars, ſpiders, and other ſmall inſects; and, not being in the leaſt degree dangerous, it muſt be uſeful in freeing the country from that overabundance of vermine, with which the very warm regions are ſo much infeſted.

Some authors, particularly Seba, have conſidered the hipnale as allied to the ceraſtes: But, beſides that it has no horns, the ceraſtes is a real viper, having two rows of ſmall plates on the under ſurface of the tail,

Hipnale. while the hipnale has only a single row of plates, similar to those on the belly.

Sp. III. *THE BOJOBI* *.

Bojobi. INFERIOR to the constrictor in size, power, and ornament, the bojobi is still a very respectable serpent; and might perhaps be placed at the head of the order, if that other king of serpents did not exist. This species grows to a considerable size; and the limits of its growth must not be assumed from such specimens as are usually met with in collections. The individual in the royal cabinet, from which our description is taken, is two feet eleven inches long, of which the tail is nearly seven inches. But it

* B. canina. Syst. nat. ed. Gm. i. 1082, G. 124. Mus. Ad. Fr. i. 39. t. 3. Gronov. Zooph. 125. n. 136.—Boa viridi. Boddaert, nov. act. Caes. vii. 17. n. 3.—Boa thalassina. Laur. amph. 89. n. 193.—Bojobi, Tetrauhoatl tleola, Cobre verde. Seba, Mus. ii. 101. t. 96. f. 2.—Bojobi. Encyclop. Method.

it must necessarily acquire a much superior size when full grown; and, if every circumstance that is related of this serpent be true, its full size cannot be very much inferior to that of the constrictor. It is said to attack and devour dogs and other large animals; and, probably from this circumstance, Linnaeus has given it the trivial appellation of *canina*, as referring to its preying on dogs, in the same manner as he calls another species of the genus *murina*, from preying on rats and mice. Unless authors have referred to this species facts which belong to the constrictor, the bojobi must necessarily acquire very considerable size, to be able to kill and swallow animals so large as a dog. Bojobi.

This species is found in the equatorial regions of Asia and America; but, owing to the difference of climate, its colours are different in India and the New World; though the individuals from both countries resemble each other in the situation of the spots, the form of the head, proportions of the body,

Bojobi. in teeth, scales, and every circumstance which can be considered as identifying the species.

The bojobi of Brasil is of a fine sea green colour on the whole upper surface of the body, with irregular white spots, some of which are somewhat lozenge shaped, and the whole are so placed as to produce a very agreeable effect. The scales are rhombic, and extremely brilliant and highly polished, reflecting the light so powerfully that the Indians give both to it and the constrictor the epithet of Tleola, which signifies *fire* serpent. When exposed to the suns rays, the beautiful green and white of its skin emulate the splendour of emeralds and diamonds. The belly is yellow, and may be said to form a gold setting to the green and white back.

The bojobi of India*, instead of the brilliant

* The System of Nature, following Seba and Laurenti, considers these as distinct species, or at least varieties: At the head of this article the synonimes of the

brilliant colours of emeralds and diamonds, unites the ſplendour of gold and rubies. The back is of an orange yellow, with paler yellow ſpots which are edged with very bright red. Bojobi.

Theſe ſerpents have no venom, and ſeem neither to fear mankind nor to do him harm. Although they do not enter into familiarity with man, and ſubmit to his careſſes, like ſeveral ſpecies of vipers, they often enter into houſes, and do harm to no one unleſs attacked. They are not, however, to be injured with impunity; for they then bite with great force, and their bite is ſometimes followed with a very conſiderable inflammation, increaſed no doubt by terror, and which is ſaid ſometimes even to cauſe death, unleſs proper precautions are employed. But theſe accidents can only depend on the ſharpneſs of the teeth, and

the Braſilian Bojobi are quoted. The following are thoſe of the Indian.—Γ.

β. Boa aurantiaca. Laurenti, amph. 89. n. 194.—Bojobi ceylonica. Seba, Muſ. ii. 81. t. 1.

Bojobi. the laceration of the wound, as there are no poiſon fangs. The upper jaw contains two rows of teeth, of which thoſe near the muzzle are long and crooked like fangs; but they are neither moveable nor hollow.

The belly of the bojobi is uſually covered by two hundred and three large plates, and the under ſurface of the tail by ſeventy-nine ſimilar whole plates *. The top of the head is covered by ſcales ſimilar to thoſe on the back. The two bones of which each jaw is compoſed are very much ſeparated at the muzzle, as in the common viper. The lips are covered with large ſcales, uſually twenty-three on the upper lip, and twenty-five on the lower; and on each lip there is a furrow or groove of ſome depth.

SP.

* In the Syſtem of Nature the numbers are 203—77, 208—77, & 205—79. The two former are probably varieties of the Braſilian, and the latter probably belong to the Indian, Bojobi.—T.

Sp. IV. *THE MURINE BOA**.

THIS ſpecies is found both in America and India. The head is a good deal like that of the conſtrictor, being covered with plain rhombic ſcales, ſimilar to thoſe on the back, and the lips are edged with large ſcales. The jaws are deſtitute of poiſon fangs. The upper part of the body is whitiſh, or ſea green, having five longitudinal rows of ſpots: The middle row is compoſed of irregular reddiſh brown ſpots, placed very near together, and touching in ſome places, which are white in the middle; the next row on each ſide are pale reddiſh brown, having each a whitiſh half circle

Murine Boa.

* Boa murina. Syſt. nat. ed. Gm. i. 1084. G. 124. Muſ. Ad. Fr. ii. 42. Gronov. Muſ. ii. 70. n. 44. Seba, Muſ. ii. t. 29. f. 1. Knorr. del. nat. t. 58?—Boa glauca. Boddaert, nov. act. Caeſ. vii. 17. n. 2.—Mangeur de rats. Encyclop. Method.—Rativore, in the original French.

Murine Boa.

circle on their disk, giving the eye-like appearance which adorns the wings of several butterflies; the outer rows on each side are reddish brown, and are placed opposite the intervals of the two former rows. On the back of the head there are five reddish elongated spots, of which the two outermost extend to the eyes. A specimen in the royal cabinet, which was sent from Ternate, is two feet and a half long, of which the tail is two inches and a sixth part. It has usually two hundred and fifty-four plates on the belly, and sixty five on the tail *. It feeds on rats and mice and other small animals.

"This species, in the System of Nature, is said to be found only in America, and is described as sea green, with round black spots. The one above described may be considered as a distinct variety, or species, under the name of Ternate rat-eater; while that of the System of Nature may be called the American

* In the System of Nature a specimen is quoted having sixty-nine plates on the under surface of the tail.—T.

American rat-eater. But the ſpecies of the Syſtem of Nature is ſaid to have its head covered with large plates inſtead of imbricated ſcales; which circumſtance ought certainly to make the two be conſidered as diſtinct ſpecies."—T. Murine Boa.

Sp. V. *THE EMBROIDERED BOA*.*

WE give this name to the preſent ſpecies, from the upper parts of its body and tail having a chain of different ſized ſpots marbled with brown-bay, cheſnut-purple, and whitiſh aſh colour, in ſuch a manner as to ſeem richly embroidered, eſpecially when the ſun ſhines upon its bright ſcales. It is probably from this circumſtance that it gets the name of *Tlehua* Embroidered Boa.

or

* Boa hortulana. Syſt. nat. ed. Gm. i. 1084. G. 124. Muſ. Ad. Fr. t. 37. Seba, Muſ. ii. t. 74. f. 1. & t. 84. f. 1.—Le Parterre. Encyclop. Method.—La Broderie, in the original French.

Embroidered Boa.

or *Tleola*, which signifies fire serpent, from the natives of New Spain.

This rich embroidery on the head is composed of much smaller streaks, more interwoven together, and more variegated; from which fine distribution of colours, resembling those in a parterre or flower bed, Linnaeus has given it the trivial appellation of *hortulana*, or garden boa, which is followed by Daubenton, in the Methodic Encyclopedia.

It is found in Paraguay and New Spain. As this species has only been described hitherto from specimens preserved in collections, so that its colours must be more or less injured or altered, by the means employed for preservation, it is difficult to ascertain the real ground colour. In our specimen the back seems bluish, and the belly is whitish, with reddish brown spots of various shades: It measures three feet six inches long, of which the tail is seven inches. The belly has two hundred and

ninety

ninety plates, and the under surface of the tail an hundred and twenty-eight. Embroidered Boa.

"In the System of Nature, this species is said to have the top of the head covered by large plates. It is described as pale or whitish, with livid wedge shaped spots; the top of the head being adorned with yellow spots, like a garden flower plot."—T.

Sp. VI. *THE HOG-NOSED BOA**.

THE muzzle of this species is terminated by a large erected scale, from which circumstance the name given by Catesby, and copied by Daubenton, is derived. In other respects the head is very large and convex, and is covered by scales similar Hog-nosed Boa.

* Boa Contortrix. Syst. Nat. ed. Gm. i. 1082. G. 124. Garden. Boddaert, nov. act. Caes. vii. 17. n. 3.—Coluber Constrictor. Syst. Nat. ed. X. 216. n. 170.—Hog-nose snake. Catesby, Carol. ii. t. 56.—Le Groin. Encyclop. Method.

Hog-nosed Boa.

similar to those on the back, as in most of the species of this genus.

This species is found in Carolina, where it has been observed by Garden and Catesby. Neither of these gentlemen, nor Linnaeus, to whom a specimen was sent by Garden, have been able to discover any poison fangs in the upper jaw of this boa; yet Linnaeus affirms to have found, on dissection, the vesicles for containing venom.

The upper surface of the body is ash coloured or brown, with regularly disposed black spots; and transverse yellow spots towards the tail. The under surface is whitish, with smaller black spots. According to Catesby, it hardly exceeds one or two feet long, of which the tail is frequently a third part. It has an hundred and fifty plates on the belly, and forty on the under surface of the tail.

Sp.

Sp. VII. *THE YELLOW BOA*[*].

Yellow Boa.

THIS ſpecies is found in Surinam. It is of a clear yellow colour, with whitiſh ſpots, having each a ſmaller grey ſpot in the middle, which forms what is called an eye, like thoſe on the wings of butterflies, and the feathers of various birds. The head is covered by imbricated ſcales, ſimilar to thoſe on the back. The belly has two hundred and ſixty-five plates, and the under ſurface of the tail fifty-ſeven.

Sp.

[*] Boa Cenchris. Syſt. Nat. ed. Gm. i. 1083. G. 124. Muſ. Ad. Fr. ii. 41.—Boa flaveſcens. Boddaert, nov. act. Caeſ. vii. 18. n. 7.—Cenchris. Encyclop. Method.

Sp. VIII. *THE SCYTALE**.

Scytale. THIS boa muſt neceſſarily attain conſiderable ſize, as it is ſaid, by Linnaeus, to cruſh the bones of ſheep and goats, like the conſtrictor, and to ſwallow them whole. It likewiſe feeds on lizards and other ſmall animals; but is ſaid not to attack mankind.

The head is covered with large plates †. The general colour is grey or aſh coloured, with a green tinge, having round black ſpots along the back, and white ſpots edged with black on the ſides; the belly has elongated

* Boa Scytale. Syſt. Nat. ed. Gm. i. 1084. G. 124. Gronov. muſ. ii. 55. n. 10. Scheuchz. ſacr. t. 737. f. 1. —Boa albida. Boddaert, nov. act. Caeſ. vii. 17. n. 1.—Le Schytale. Encyclop. Method.

† In the Syſtem of Nature, the murine boa, embroidered boa, and this ſpecies, are ſaid to have theſe large plates on the head; while all the reſt of this genus have the head covered with imbricated ſcales, like thoſe on the back.—T.

gated spots, composed of a multitude of minute black dots. The belly has two hundred and fifty plates, and the under surface of the tail seventy*. Scytale.

Sp. IX. *THE BROWN BOA*†.

FROM a specimen in the collection of the Baron de Geer, Linnæus described this species. It resembles the constrictor in many respects, but is of an uniform brown colour, and has a good many more plates on the under surface of its body; Brown Boa.

* There is certainly some error in these numbers, which are copied from the System of Nature; as in that work the united number is said to be 323. Another specimen is quoted, in Gmelins edition, having only 26 plates on the tail.—T.

† Boa Ophrias. Syst. Nat. ed. Gm. i. 1084. G. 124. Mus. de Geer.—Constrictor orophias. Laur. amph. 109. n. 239.—Ophrie. Encyclop. Method.

Brown Boa. having two hundred and eighty-one on the belly, and eighty-four on the tail *.

Sp. X. *THE GREY BOA* †.

Grey Boa. ALL that is known of this species is the short character given of it by Linnæus, from a specimen in the collection of the Baron de Geer. It is of a grey colour, but variegated with different shades. The teeth of the lower jaw are longer, in proportion to the size of the animal, than those of

* In Gmelins edition of the System of Nature, these separate numbers are given as above; but the aggregate is set down as 345, instead of 365.—T.

† Boa Enydris. Syst. Nat. ed. Gm. i. 1084. G. 124. Mus. de Geer.—Boa grisea. Boddaert, nov. act. Caes. vii. 18. n. 8.—Enydre Encyclop. Method.

In this, and some other species of this genus, the Translator has departed from his usual rule, of following the Linnæan trivials as much as possible, because several of them have parallel trivials in other genera of the order, which is apt to occasion confusion.—T.

of other ſpecies of the genus. It has two hundred and ſeventy plates on the belly, and an hundred and five on the tail. It is ſaid to have come from America. Grey Boa.

Sp. XI. *THE SLENDER BOA**.

"THIS ſpecies is altogether omitted in the original, and is added here by the Tranſlator, from the laſt edition of the Syſtem of Nature, as edited by Gmelin. In that work it is placed in the genus of ſnakes, *Anguis;* but is here arranged with the boa, from both the belly and tail having plates as in that genus. Slender Boa.

It is extremely ſlender, with a ſomewhat pointed tail. The head is covered by large plates or ſcales, different from thoſe on the back. The body is variegated by waved

 tranſverſe

* Anguis ſcutatus. Syſt. Nat. ed. Gm. i. 1122. G. 126. Laur. amph. 70. n. 132. Scheuchz. phys. ſacr. t. 737. f. 1.

Slender Boa.

transverse bars of black and white alternately. It is an inhabitant of Surinam*.

THIRD

* In the original of this work, the Author has added a serpent to this genus, under the name of *Muet*, or Dumb boa; but which the Translator has thought right to restore, with Linnaeus, to the genus of Rattlesnake: For, although it has no *rattle*, properly so called, it has a peculiar conformation at the extremity of the tail, very different from the boa; and, besides, is furnished with very large poison fangs, which are altogether wanting in all the species of boa.—T.

THIRD GENUS.

RATTLE-SNAKES.

Having the belly and under surface of the tail covered by large plates; and the tail terminated by a large scaley appendage, or by several articulated horney processes, which move and make a rattling noise.

Sp. I. *THE BOIQUIRA* *.

A TRAVELLER, wandering in the burning deserts of Africa, and fainting under the power of a vertical sun, who hears Boiquira.

* Crotalus horridus. Syst. Nat. ed. Gm. i. 1080. G. 123. Mus. Ad. Fr. i. 39. Boddaert, nov. act. Caes. vii. 16. n. 1. Bradl. natur. t. 9. f. 1. Seba, mus. ii. t. 95. f. 1. Michael. Goetting. Magaz. iv. i. p. 90.—Caudisona terrifica.

Boiquira. hears the roaring of a famiſhed tiger * furious for prey, and who has no means either of eſcape or defence, feels not greater dread than when, paſſing through the vaſt foreſts of the warm and humid regions of the New World, he ſcents the abominable fetor of the boiquira, hears the terrifying noiſe of its portentous rattle, and obſerves it ready to ſpring upon him, from amid the verdant foliage and brilliant flowers of theſe delightful ſolitudes. Kalm informs us †, "That

terrifica. Laur. amph. i. 93. n. 203.—Vipera caudiſona, Anguis crotalophorus. Ray, Synops. 291. Muſ. Kircher. Cl. ii. fol. 35. t. 9. n. 43.—Teuhtlacot zauhqui, Regina ſerpentum Hernaud. Hiſt. nat. Mex.—Boicinininga, Boiquira, Ayug. Piſo. Braſ. iii. 41. Marcgrav. Braſ. vi. 240.—Ecacoatl, Caſcavela, Caſcavel, Tangedor, Serpent-à ſonnette, Rattle-ſnake.——Boiquira. Encyclop. Method.

* The tiger is not an African animal, and neither it nor the lion go about or roar during the day. They ſkulk in thickets, watching for prey, and their terrible roar is ſeldom heard but in the night. Both are often ſeen in the day-time in their hiding places.—T.

† Collect. Acad. part. etrang. xi. 94.

"That the odour of the boiquira is extremely fetid, eſpecially when it baſks in the ſun, or when irritated; and that the animal is often diſcovered by the ſcent before it is either ſeen or heard. Horſes and other cattle frequently diſcover it by the ſcent, and eſcape to a diſtance; but, when the ſerpent happens to be to leeward of their courſe, they are apt to run into danger without warning." Boiquira.

This terrible ſerpent contains a mortal venom, equal in virulence to that of any other, not even excepting the naja. Hernandez deſcribes this ſpecies as only four feet long; Marcgrave, as rather more than four feet; Piſo, as five: But Kalm ſays it is ſometimes ſix feet long, and eighteen inches in circumference; and Cateſby ſays the largeſt individuals are almoſt nine feet in length. The ſpecimen in the royal collection, from which our deſcription is formed, meaſures four feet ten lines in length, of which the tail is four inches. In gene-

Boiquira. ral the tail, in this genus, is ſhort in proportion to the length of the body.

The head is flat, and is covered near the muzzle by ſix ſcales larger than the reſt, which are ranged in three rows, two in each. The eyes are fiery, and ſhine even in the night, like thoſe of ſeveral other ſerpents, giving out then the light which they had abſorbed during the day. They are furniſhed with nictitating membranes, according to Tyſon, who has given a very complete account both of the external and internal ſtructure of this reptile *. The mouth is very wide, meaſuring four inches in circumference in our ſpecimen. The tongue is black, ſlender, and bifid, is partly incloſed in a ſheath, and almoſt conſtantly excerted and agitated with great quickneſs.

The two bones which form the lower jaw are not united at the muzzle, leaving a conſiderable ſpace between, which can be increaſed at the pleaſure of the animal, to

* Philoſophical Tranſactions, No. 144.

to enable it to swallow a prey of considerable dimensions. Each of these is furnished with several hooked teeth, the largest of which are placed nearest the muzzle; and they are all turned backwards, so as to prevent the escape of prey, while the serpent infects it with venom from its poison fangs in the upper jaw. Immediately under the skin, on each side of the upper jaw, the vesicles which contain the venom are situated. By compression, these convey the venom, through proper ducts, to the roots of two very long poison fangs at the fore part of the upper jaw. These fangs are partly concealed in a membranous sheath, out of which they are erected when about to be employed. They are hollow for the greater part of their length; the venom entering at a hole in their base, within the sheath, and coming out by a longitudinal slit near the point, which is more than the twelfth part of an inch long in our specimen, in which these fangs are half an inch long. When the vesicles are pressed on, a greenish

Boiquira.

Boiquira. greenish fluid, which is the venom, may be seen to flow freely from the slit*. This fluid tinges linen of a green colour, which becomes brighter by washing †. Besides the fangs, similar to those of other poisonous serpents, the upper jaw is furnished with other small but hooked teeth, which assist those of the lower jaw to retain the prey.

The back scales are oval, and have each a longitudinal ridge. Some writers allege that these are so loosely fixed to the skin, that the animal can erect them all when enraged. But any such motion must be very inconsiderable, as they are actually attached to the skin almost the whole of their length and breadth. The whole under surface of the body and tail is covered by single large plates, as in the boa genus. In our specimen there are an hundred and eighty-two

* Kalm, as already quoted.

† M. S. by Gauthier, written in 1749, communicated by M. Fougerouk de Bondaroy, of the Royal Academy.

two of these on the belly, and twenty-seven on the tail. In the one described by Linnæus, there were an hundred and sixty-seven of the former, and twenty-three of the latter*. In the individual described by Tyson, there were an hundred and sixty-eight on the belly, and nineteen under the tail. According to Tyson, every one of these plates is moved by a particular muscle, having one extremity fixed to the upper surface of the next inferior plate, and the other inserted into the middle of the inner surface of the upper plate. Each plate is fixed at each end to the extremities of two ribs, and on these pivots the plates are erected or depressed by means of their peculiar muscles†. Bolquira

The general colour of the back is grey, mixed with yellowish, on which there is a longitudinal row of black or dark brown spots,

* In Gmelins edition the aggregate number is set down as 192, which does not result from these separate numbers —T.

† Tyson, as already quoted.

Boiquira. spots, edged with white. Tyson describes two small glands which have excretory ducts into the rectum near the vent, and which secrete a thickish liquor, of a very strong and disagreeable fetor.

As in most species of this genus, the tail is terminated by a series of sonorous horney process, which are articulated into each other; and which we shall here attempt to describe in detail, as an attentive consideration of their figure and position may enable us to discover the means of their production, and the manner of their growth and increase. To understand the following description, the accompanying plate contains, a rattle (M), one of its pieces separated from the rest (N), and a longitudinal section of the whole (O).

The rattle of the boiquira is composed of several pieces, varying from one or two to thirty, and even more. All these pieces are exactly similar to each other in form, and generally in size; and are formed of a brittle elastic semitransparent substance, of

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the ſame nature with that of the ſcales and plates. The joint which is attached to the body, like all the others, is in form of a kind of pyramid with four ſides or faces, of which two oppoſite ſides are conſiderably broader than the other two. It may be conſidered as a kind of pointed ſheath, incloſing the loweſt vertebrae of the tail, on which it is exactly fitted, having only a very thin membrane interpoſed, and its interior ſurface follows preciſely all the inequalities of ſurface of the included bone. This firſt joint of the rattle has three circular protuberances, which are hollow within, and correſpond with three ſimilar protuberances of the vertebrae: The ſurface of theſe are rugged or uneven in both, exactly correſponding to and fitting each other. The uppermoſt protuberance, or that neareſt the animal, has the largeſt diameter, and the loweſt protuberance is the ſmalleſt. All the joints of the rattle are ſucceſſively articulated into each other, in ſuch a manner th at the joint immediately ſucceeding con- Boiquira.

tains

Boiquira. tains two of these protuberances belonging to the joint nearer to the body, so that only one protuberance of each joint is seen externally, excepting only the lowest or extreme joint, in which all the three protuberances are visible.

The two under protuberances of each joint are concealed by, and contained within, the two upper protuberances of the next succeeding inferior joint, of which they almost fill the hollows, and prevent that inferior joint from becoming detached from the rest of the rattle. But, as these two included protuberances are less in diameter than the two which contain them, each joint plays freely around the one which it includes and holds fast. Only the uppermost joint of all is connected with the skin of the animal; and, notwithstanding what has been alleged by Seba and others, all the rest of the joints are altogether disconnected from each other, and from the skin of the serpent, having neither muscle, nerve, vessel, nor other connecting substance whatever;

ever; and are only held in their places by the mechánical application of ſurfaces already deſcribed. Hence all the inferior joints can acquire neither nouriſhment nor increaſe of growth; and are merely in the predicament of foreign detached ſubſtances, capable of motion among themſelves, when agitated by the motion of the ſerpents tail. Boiquira.

The rattle is ſo placed, with reſpect to the body of the ſerpent, that its broadeſt ſides are vertical when the animal crawls on its belly. It is not immediately connected with the large plates of the under ſurface of the tail; there being interpoſed, between the laſt of theſe plates and the firſt joint of the rattle, a row of ſmall ſcales ſimilar to thoſe on the back. The rattle of the ſpecimen in the royal cabinet is compoſed of ſix joints; it is one inch and nine twelfths in length, and its greateſt diameter is nine twelfths of an inch.

The ſtructure of this rattle, as juſt deſcribed, ſeems extraordinary; but the manner of its production will explain theſe ſingular

Boiquira. gular appearances. The different joints of which it is compoſed muſt have been formed in ſucceſſion. Each of them, at its firſt growth and formation, muſt have been attached to the ſkin, without which it could not have received nouriſhment. In proof of this, ſome remains of the ſkin, to which it has once been attached, are ſometimes obſervable, ſtill adhering to the edges of thoſe pieces which have now no connection whatever with the animals body.

After the full formation of the firſt joint, a ſecond, exactly ſimilar in every reſpect, begins to form within the firſt, which it puſhes off from its connection with the end of the tail. The original firſt joint, however, is not entirely detached from the ſerpent, with which it ſtill continues mediately connected, by the intervention of the new joint, which puſhes it backwards, leaving, between its edge and the ſkin of the ſerpents tail, the upper protuberance of the new joint; while the ſecond and third protuberances of that new joint are covered

and

and embraced within the two upper protuberances of the old one, leaving a free motion between the two joints. A third new joint is afterwards formed, within the second, exactly in the same manner as the second had been formed within the first, and mediately connected exactly in the same manner, and having the same free motion. Boiquira.

If the last vertebrae of the tail have not increased in size, during the successive formation of the joints of the rattle, each of these joints, which are moulded or fashioned around these vertebrae, are of the same diameter, and the rattle is of the same dimensions throughout. But, on the contrary, if these vertebrae have increased in size, the protuberances of the new joints become necessarily larger in diameter than those which had been formed before the increase of the vertebrae, and the rattle tapers towards its lower extremity. In the different rattle-snakes which are preserved in the royal cabinet, the rattles are all of equal diameters at their origin and towards

Boiquira. the tip. But, in ſeveral detached rattles that are in the ſame collection, the different joints or pieces diminiſh in ſize towards the lower extremity.

From the foregoing account of the formation of the rattle, it is evident that one joint only is formed during each ſucceſſive moulting which takes place at the extremity of the tail. Hence the number of joints, or pieces in the rattle, muſt equal theſe ſucceſſive particular moultings. But, as we are ignorant whether theſe particular moultings, at the end of the tail, accompany the general moulting of the body, or caſting of its old ſkin, and whether they take place once only or ſeveral times in the year, the number of joints in the rattle cannot be taken as a mark of difference or identity of ſpecies, nor as a regiſter of the age of the individual, as has been alleged by different authors *. More or leſs abundant

* See Seba. Hiſt. Nat. de l'Orenoque, iii. 78. Ray, Synop. 291.

dant nouriſhment, or difference in temperature of climate, may occaſion more or fewer moultings in the ſame year; and from this circumſtance may proceed, that ſome individuals have the rattle of an uniform diameter, becauſe the lower vertebrae had not increaſed in ſize during the period of the ſucceſſive formation of the joints; while in others, theſe moultings having taken place at longer intervals, the vertebrae had ſenſibly increaſed in ſize during their formation, and the rattle will of conſequence have a conical or tapering form. It may likewiſe happen, that an individual, having experienced different circumſtances at different periods of its life, may have ſome portions of its rattle, compoſed of ſeveral joints, of one uniform diameter; while another portion of the ſame rattle has a tapering form. Boiquira.

If the different joints, which form the rattle, were not ſubject to exceſſive deſiccation, and conſequent deſtruction from various accidents, we ſhould expect to find

Boiquira. rattles of prodigious size in old serpents, almost equal to the length of their bodies. Accordingly Kalm, in the work already cited, informs us, "That, in America, it is pretended the circles of the rattles point out the age of the particular serpents. That the young ones have only one joint, while some are killed that have so far as twelve. Old people allege they have seen rattlesnakes with from twenty to thirty, and that formerly they were found with forty-one joints or more; but that the destruction of these reptiles, by the planters, prevents them from acquiring their full growth." But, as the joints of the rattle derive no nourishment whatever from the constitution of the serpent, they necessarily become very brittle, and are frequently broken off by various accidental injuries. Hence, even if we were certain of the regular and annual formation of new joints, no conclusion could be derived relative to the age of the individual, from the actual number of joints in its rattle.

In

In the general moulting or regular caſting of the ſkin, which muſt take place in the ſame manner with that of other ſerpents, and which we have particularly deſcribed in the account of the Roman viper, if the change extends to the extremity of the tail, and carries off along with it the firſt or fundamental joint of the rattle, all the reſt muſt neceſſarily drop off along with it; and, in that caſe, the exiſting rattles of every individual can only be compoſed of ſuch joints as are formed between one moulting and another. Boiquira.

As all the pieces which compoſe the rattle are perfectly dry, and have free motion among themſelves when ſhaken, they make a very ſenſible noiſe, ſomewhat like that produced by rumpled dry parchment, and which may be diſtinctly heard at the diſtance of twenty yards. It were to be wiſhed that its noiſe could be heard at a greater diſtance, that the approach of the boiquira might be ſooner diſcovered, and more eaſily avoided; for its motions are extreme-

Boiquira. ly rapid, and almoſt in the twinkling of an eye it coils into a circle, reſting on its tail, and precipitates itſelf on its prey, wounds it with its fangs, and again retires to avoid the vengeance which it merits. From the quickneſs of theſe motions, the Mexicans give it the name of *Ecacoatle*, which is derived from reſembling the ſwiftneſs of the wind.

The boiquira is found in almoſt every part of the New World, from the Streights of Magellan to lake Champlain on the borders of Canada. In this vaſt country it formerly reigned, ſo to ſpeak, uncontrouled; as hardly any of the native animals preyed upon it, and the ancient Americans, from ſome ſuperſtitious terror, dared not to deſtroy it. But, grown wiſer by the example of Europeans, they now deſtroy it every where with great eagerneſs. The arts and labours of civilized life, now daily clear and fertilize the ſoil of America, and diminiſh greatly both the number of theſe terrible

rible ſerpents and the ſpace in which they exerciſed their ravages *. Boiquira.

The boiquira feeds on frogs, lizards, hares, and other ſmall animals; and, as it climbs trees with great readineſs, it preys on ſquirrels and birds. It likewiſe feeds on worms, as Tyſon mentions having found a great number of worms, ſimilar to the common earth-worm, in the ſtomach and inteſtines of one which he diſſected. It not only climbs trees readily, but glides nimbly from branch to branch; and, with equal facility, ſprings among the cliffs and projecting points of rocks in ſearch of prey.

The ſtinking breath of the boiquira, which often terrifies the ſmall animals which it means to ſeize, perhaps has the effect of preventing their eſcape. The Indians relate, that it is often ſeen twiſted

* No circumſtance tends more, in America, to clear the country from the rattle-ſnakes and other venomous ſerpents, than the multitudes of hogs which are every where reared by the planters, and which devour ſerpents with avidity.—T.

Boiquira. round the bottom of a tree, and glaring ſteadily at a ſquirrel in the branches, which, after evincing its terror by violent agitation and repeated cries, falls at the foot of the tree and is devoured.

Kalm, as already cited, ſays, "that, in captivity, it is extremely irritated when animals are preſented to it; it kills them, but will not eat them; and, refuſing every kind of nouriſhment, will even live without food for ſix months." Voeſmaer, who made a number of experiments at the Hague on the bite of a living boiquira, ſays, that when birds and mice were put into its cage, they were exceſſively terrified, and at firſt endeavoured to hide themſelves in a corner, but at laſt, as if maddened with fear, they ran to meet their enemy, which continually ſhook its dreadful rattle.

The ſuppoſed effects of the ſtinking breath of the boiquira has been much exaggerated, ſo as even to become marvellous and unnatural. It has been ſuppoſed to poſſeſs the faculty of enchanting, or faſcinating, the animal

mal which it wiſhed to devour; that, by the power only of its look, it conſtrained them to approach by degrees, and at length to fall into its mouth; that even man is unable to reſiſt the magical influence of its gliſtening eyes, and, inſtead of endeavouring to eſcape the evident danger, is forced to preſent himſelf to its venomous fangs. Little as is known of theſe ſerpents, and of their natural hiſtory, much of theſe marvellous ſtories are certainly imaginary, and many fables have been added to exaggerate the real effects of their fetid breath, which is in reallity by no means ſo powerful as has been alleged. It is probable, as Kalm ſuppoſes, that in moſt of theſe inſtances, where a ſquirrel or a bird has been ſeen to come apparently of its own accord, from the top of a tree into the mouth of a rattle-ſnake, that it had been previouſly bitten by the ſerpent; and, having eſcaped into the tree, where it expreſſed, by its cries and agitation, the violent action of the venom which it had received, that, as its ſtrength Boiquira.

Boiquira. ſtrength diminiſhed, it deſcended gradually from branch to branch, till at length it became exhauſted, and fell to the ground near the ſerpent, which remained ſteadfaſtly following all its motions with its eyes, and ready to ſeize it when ever it came within reach. This opinion, which deſtroys the ſuppoſed idea of faſcination, is confirmed by the obſervations of ſeveral travellers beſides Kalm.

Some writers aſſert, that the fury of the boiquira is increaſed by rain; but this muſt be in times of thunder ſtorms, for it is by no means afraid of water, which it voluntarily takes to at times. During ſtorms of thunder it is moſt to be dreaded. One even ſhudders in idea, at the terrible ſituation and mortal agony of a perſon who, eſcaping in the midſt of almoſt total darkneſs from the horrors of a tornado, ſeeks ſhelter under the ledge of a rock, and perceives the glaring eyes of a boiquira through the gloom, ſometimes illuminated by the lightening, while he hears the threatning rattle of its tail, and

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the horrid hiſſings of its venomous mouth. Kalm ſays, that it is moſt to be feared during the rainy ſeaſon, at which times the Americans ſeldom travel in the woods. At theſe times, likewiſe, the rattles make hardly any noiſe; probably becauſe their joints are then ſoftened and leſs elaſtic than in dry ſunny weather. Boiquira.

Though this ſerpent ſeems only to exiſt for the purpoſes of deſtruction, it is ſtill ſenſible to the fires of love. The ſame ardour which animates its whole being, which exalts its venom, and increaſes its murtherous powers, augment its deſire of reproduction. The female lays but few eggs; but as this ſerpent lives a good number of years, the ſpecies is ſtill by much too numerous.

In countries which are ſomewhat removed from the line, the boiquira retires in great numbers during winter into caverns, where they are found almoſt torpid, and deprived of all force and activity. At theſe times the negroes and Indians venture into their retreats to deſtroy them; and, in ſpite

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Boiquira. of the horror usually inspired by these dangerous reptiles, they eat their flesh, which is said not to be unwholesome, provided the serpent has not bitten itself. They likewise eat the fat; or they melt it in the heat of the sun into an oil, which is said to be a sovereign remedy against the bites of mosquitoes, and even against the venom of its own fangs*. This oil is likewise employed as a remedy for various pains, particularly those of the sciatica, and for dissipating hard swellings †.

Lest the boiquira should bite itself when taken, it is recommended to kill it as quickly as possible. But this idea does not tally with the allegation, that it is quite safe to eat animals which have died of its bite; in the same manner as the savages feed with safety on game which they have killed with poisoned

* Any oil or grease whatever is probably equally efficacious.—T.

† Kalm, as before cited; and Hernandez, Hist. Nat. du Mexique, Liv. ix. chap. 17.

poiſoned arrows. This laſt opinion ſeems the moſt probable, as otherwiſe the boiquira might poiſon itſelf, by eating ſuch animals as had been deſtroyed by its poiſon fangs. Boiquira.

In the cold ſeaſon, the negroes ſeize the boiquira by the head, and at that time it has not ſufficient ſtrength either to defend itſelf or to endeavour to eſcape. It is likewiſe the prey of ſome large ſpecies of vipers, which probably ſeize it in ſuch a manner as to evade its fangs *. The wild hogs, which, according to Kalm, feed without inconvenience on the boiquira, probably have the ſame addreſs in ſeizing them. The moment one of theſe hogs ſmells a rattle-ſnake, it erects its briſtles, and ruſhes upon it with avidity: The hog is perhaps defended from the effects of the venom, at leaſt in certain parts of its body, by the thickneſs of its hair, the hardneſs of its ſkin, and the depth of its fat.

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* See knot viper, Sp. 122. of the firſt genus.

Boiquira. The boiquira is, like other ſerpents, extremely tenacious of life. Tyſon relates *, "That the one he diſſected lived ſeveral days after its ſkin had been removed, and moſt of its intrails were extracted. During all that time its lungs remained diſtended with air, and did not contract till after the animal was dead. The lungs of this ſerpent, at the fore part of the body, were compoſed of ſmall cells, like thoſe of a frog; behind theſe, they extended in two large and ſtrong tranſparent bladders; and were in all near three feet long."

In the ſpring of high latitudes, when the ſnow is melted and the air begins to grow warm, the boiquira comes out of its retreat during the day, to baſk in the ſun, but it returns to its cavern during the night, and does not finally quit its hiding place to go about in ſearch of food, and even ſometimes to enter into houſes, until the ſpring froſts have entirely ceaſed. When it firſt begins to creep out into the ſun ſhine, the natives venture

* Philoſophical Tranſactions, No. 144.

venture to ſearch for it, as at that time its powers and vivacity are extremely limited, and often kill great numbers. Boiquira.

During ſummer, it is found often in elevated hills or mountains, moſtly uncultivated, covered with wood, and compoſed of calcareous rocks; ſuch as thoſe in the neighbourhood of the famous cataract of Niagara. It uſually chuſes the ſouth ſides of theſe hills, preferring the warmeſt expoſures, and ſuch places as are moſt favourable for procuring prey. It frequently lays in wait at the edge of a ſpring or rivulet, frequented by frogs, or where ſmall animals come to drink. It often lays hid under the trunk of an overturned tree; for which reaſon, according to Kalm, the American travellers and hunters ſeldom paſs over ſuch trees as are in their way, but rather chuſe to go round them; or, if forced to paſs over, they leap on the tree, and then leap from it as far as they can.

The boiquira ſwims with great readineſs, ſkimming on the ſurface of the water, al-

moſt

Boiquira. moſt with the ſwiftneſs of an arrow; and, on ſuch occaſions, is exceſſively dangerous to people in ſmall boats, as it often leaps into them, and one can hardly conceive a more terrible ſituation, as all ſafety from flight is impoſſible, and the ſmalleſt bite proves inevitably mortal: It is requiſite to conquer in an inſtant, or to periſh in the moſt horrible tortures.

The firſt effect, produced by the venom of this terrible ſerpent, is an univerſal ſwelling of the body; the mouth becomes inflamed, and is unable to contain the enormouſly ſwelled tongue; the miſerable patient is tortured by inceſſant thirſt, and drink, inſtead of relieving, ſerves only to augment his agony. The ſpittle becomes bloody: The fleſh about the wound ſoon corrupts; and, eſpecially during the dog days, the perſon often dies in five or ſix minutes after the bite; but this depends upon the part which has been bitten*. The American Indians are ſaid to employ a plaiſ-

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* See the works of Laurenti.

ter or cataplaſm, compoſed of the head of the rattle-ſnake, as an antidote to its bite. It is alleged that the boiquira avoids places in which the Virginian dittany grows, and that this plant has been tried as a remedy againſt its bite. We are told *, "That, in the month of July 1657, ſome leaves of the dittany a little bruiſed, and fixed to the end of a long ſtick, were held to the noſe of a rattle-ſnake, which it turned away from with great agitation, and died in leſs than half an hour, apparently owing to the ſmell of the leaves." The remedy uſed by the Indians was long kept ſecret, but was at laſt diſcovered by Dr Tennant, a Scotch phyſician, to be the root of the plant named Virginian poligaly, ſeneka, or ſenega †, called likewiſe from this circumſtance rattle-ſnake root. Boiquira.

* Philoſophical Tranſactions for the year 1665.

† Polygala Senega, of the botaniſts: See Linnaeus and Laurenti.—In the Syſtem of Nature, this application is ſaid to be rendered more effectual by means of ſcarifying the part, and by large draughts of warm milk. —T.

Boiquira. root. Frequently ſuch as have been cured of the bite of a rattle-ſnake, are troubled for a year or more, with ſevere periodical pains, accompanied with conſiderable ſwelling of the parts which had been bitten; and ſometimes they bear the marks of their danger all their lives after, remaining yellow, or ſpotted with different colours.

Captain Hall relates, in the Philoſophical Tranſactions, ſeveral experiments made by him in Virginia on the bite of the boiquira. He fixed one of about four feet long to a ſtake, and cauſed it to bite three different dogs. The firſt died in fifteen ſeconds: The ſecond, which was bitten ſoon after, died in convulſions in two hours: The third, bitten half an hour after the ſecond, ſhowed no marks of the venom until three hours after it was bitten. Four days afterwards, another dog died in half a minute, and ſtill another in four minutes. A cat was found dead the morning after being bitten. Three days afterwards, a frog died in two minutes, and a fowl of three months old

old in three minutes. Some time afterwards, a healthy and vigorous white ſerpent was brought to the boiquira: They fought and bit each other; and the boiquira, though it loſt ſome drops of blood, gave no ſymptom of injury, but the white ſerpent died in eight minutes. After this, the boiquira was irritated till it bit itſelf, and died in twelve minutes; thus, turning its own lethal weapons againſt itſelf, it revenged the former victims of its fury. Boiquira.

"The bite of this ſerpent is extremely dangerous, in whatever part of the body it happens to be inflicted. Horſes and cattle die of its bite almoſt inſtantly. Dogs ſuffer it better; and there are inſtances of their having been five times cured. Mankind are likewiſe curable, when the remedy is applied in time; but when the poiſon fang has entered a large veſſel, they die in two or three minutes. Leathern boots are by no means a ſure defence; as the fangs are ſo ſharp as to pierce them eaſily, eſpecially when they fit the leg exactly. Wide ſea-

Boiquira. mens trouſers, which reach to the heels, are ſaid to be more effectual; as, when the ſerpent bites, their folds oppoſe themſelves to the effort of the teeth and jaws: Perhaps both were the ſureſt defence *."

The author of the Natural Hiſtory of Peru, and the adjacent countries †, after ſaying that rattle-ſnakes are extremely plentiful in Parguay, goes on as follows. "It is obſerved that, when its gums are too full of venom, it ſuffers great inconvenience; and, on purpoſe to get rid of the ſuperabundance, it attacks every thing which comes in its way; biting with two large hollow fangs, and inſtilling, through theſe into the wound, the venomous fluid which diſtreſſes it. The effects of this bite, and that

* Kalm, Collect. acad. part. etrang. xi. 95.

The Indians, and other inhabitants of North America, wear a kind of boots or gaiters, having a looſe red flap on the outſide of the legs, which attracts the attention of ſerpents, and is frequently bitten by them inſtead of the leg.—T.

† Hiſt. Gen. des Voy. LIII. 419.

that of several other serpents of that country, are extremely sudden. Sometimes blood ouzes in considerable quantity, from the eyes, the nostrils, ears, gums, and roots of the nails. Remedies, however, are not wanting against this venom. Those which are considered as most effectual are, a stone which is named Saint Paul, bezoar, and chewed garlic, applied to the wound. The head and liver of the serpent, eaten to purify the blood, are much recommended. But the most certain and effectual remedy, is to make an incision instantly upon the bitten part, and to apply sulphur to the wound; which often of itself is sufficient to effect a cure." Boiquira.

Favoured inhabitants of our temperate regions, how happy are we in being placed at a distance from those countries, where heat and moisture exert so powerful an influence! Here, we have no dreadful serpent to infect, with its mortal venom, the water, in which it swims with facility; the trees, whose boughs it glides over with agility;

Boiquira. the earth, whoſe caverns it fills with its hideous form; the ſolitary woods, where it exerciſes the ſame ſanguinary ſway as the tiger in its burning deſerts, and in the obſcurity of which its prey is more certainly expoſed to its envenomed tooth! Let us not regret the natural beauties of thoſe warmer climes; their more umbrageous trees; their more verdant foliage; their more beautiful flowers, which yield a richer perfume: Theſe flowers, and trees, with all their gay foliage, conceal the boiquira beneath their deceitful beauties!

Sp. II. *THE MILLET* *.

Millet. THIS rattle-ſnake was firſt obſerved in Carolina, by Dr Garden and Cateſby, by the former of whom a ſpecimen was communicated to Linnaeus. The following deſcription is taken from a ſpecimen in the

* Crotalus Miliarius. Syſt. nat. ed. Gm. i. 1080. G. 123. Garden. Cateſby, Carol. ii. t. 42.——Le Millet. Encyclop. Method.

the royal collection, which measures fifteen inches and ten lines long, of which the tail is one inch and ten lines. Its rattle is composed of eleven joints, being only one line broad in its largest diameter, and is separated from the large plates by a row of small scales. The belly is usually covered by an hundred and thirty-two plates, and the under surface of the tail by thirty-one or thirty-two. Millet.

The upper surface of the body is grey, with three longitudinal rows of black spots; the middle row having a red spot in the centre of each black one, and a red spot between every two. The top of the head is armed by nine large scales in four rows. The back scales are oval and ridged. The upper jaw has two very long and moveable poison fangs.

Sp. III. *THE DRYINAS* *.

Dryinas.

MOST of the rattle-ſnakes have the ſame natural habitudes; we need not, therefore, repeat what already has been detailed at large on this ſubject, in the article devoted to the boiquira. In this place we ſhall only give the principal external marks of diſtinction which are found in the preſent ſpecies.

The dryinas is whitiſh, with pale yellow ſpots. The top of the head has two ſcales conſiderably larger than the reſt. The back ſcales are oval and ridged. The belly has uſually an hundred and ſixty-five plates, and

* Crotalus Dryinas. Syſt. Nat. ed. Gm. i. 1081. G. 123. Amoen. ac. 297. Seba, muſ. ii. t. 95. f. 3. & ii. t. 96 f. 1.—Crotalus exalbidus. Boddaert, Nov. act. Caeſ. vii. 16. n. 3.—Caudiſona Dryinas. Laur. amph. 94. n. 206.—β. Caudiſona orientalis. Laur. amph. 94. n. 207. —Serpent à ſonnette. Encyclop. Method.—Le Dryinas, of the original.

and the under surface of the tail thirty. It is found in America. Dryinas.

"Our author quotes the crotalus orientalis of Laurenti, as a synonime of the dryinas; while Gmelin places it as a distinct variety, and quotes the two figures from Seba as referring to it instead of the dryinas. No marks of distinction between the two are noted, except that the latter has only an hundred and sixty-five plates on the belly and twenty-eight on the tail. From the trivial name adopted by Laurenti, it was probably considered by him as a native of India: If, therefore, we were in possession of proper distinctive characters, the one might be named the American, and the other the Indian, dryinas."—T.

Sp.

Sp. IV. *THE DURISSUS**.

Duriſſus. THIS American ſerpent is variegated, on the upper ſurface of its body, with white and yellow; on which are rhombic black ſpots, which are white in the middle of each. The top of the head has ſix large ſcales in three rows. The back ſcales are oval and ridged. The ſpecimen in the royal cabinet, which has only one joint in its rattle, is ſeventeen inches and a half long, of which the tail is one inch and two thirds †.

In

* Crotalus Duriſſus. Syſt. Nat. ed. Gm. i. 1081. G. 123. Amoen. ac. i. 500. Weigel, act. Hal. i. 7. Kalm. —Act. Stockh. anno 1752. p. 310. and anno 1753. p. 52—185.—Crotalus albus. Boddaert, Nov. act. Caeſ. vii. 16. n. 2.—Caudiſona Duriſſus. Laur. amph. 93. n. 204.—Teutlaco-tzouphi. Seba, muſ. ii. t. 95. f. 2.—Teuthlaco. Encyclop. Method.—Le Duriſſus, of the original.

† In the Syſtem of Nature, this ſpecies is ſaid to vary from 18 inches to four feet and a half in length.—T.

In our ſpecimen, the poiſon fangs are one third of an inch in length, and both jaws are furniſhed with hooked teeth, bending towards the throat. It would appear that, when alive, the animal might extend the two bones of the lower jaw beyond the lips, as they are only connected together by membranes. The belly is uſually covered by an hundred and ſeventy-two large plates, and the under ſurface of the tail by twenty-one *. Duriſſus.

" In addition to the above, Gmelins edition of the Syſtem of Nature gives the two following varieties, with their ſynonimes and authorities †.

β. Gronovian Duriſſus ‡. Of this variety

* Theſe numbers are the ſame in the Syſtem of Nature, but the aggregate is there made 196: Beſides, another ſpecimen is there quoted, of which the numbers are 170—30.—T.

† This is added by the Tranſlator.

‡ Crotalus Duriſſus, var. β. Syſt. Nat. ubi ſupra.—Crotalophorus tertius. Gronov. Muſ. ii. 70. n. 45.—Caudiſona, Gronovii. Laur. amph. 94. n. 205.

Duriſſus. ty no particular diſtinction is mentioned, except the difference in the number of plates; having an hundred and ſeventy on the belly, and twenty-two on the under ſurface of the tail.

γ. Faſciated Duriſſus *. This variety is diſtinguiſhed by having two black ſtripes or bars on the head and neck. It is introduced by Voſmaer, the celebrated keeper of the Orange cabinet at the Hague. Beſides the bars on the head, it is marked as having from an hundred and ſixty-three to an hundred and ſeventy plates on the belly, and from twenty to twenty-nine on the under ſurface of the tail †."

SP.

* Crotalus Duriſſus, var. γ. Syſt. Nat. ubi ſupra.—Crotalus faciatus. Voſmaer, monogr. anno 1767.

† The Syſtem of Nature mentions, that certain American ſpecies of the Ariſtolochia and Solidago genus of plants are conſidered as antidotes to the venom of this rattle-ſnake.—T.

Sp. V. *THE FISHER* *.

THIS ſerpent is firſt mentioned by Cateſby, in his Natural Hiſtory of Carolina, and has not been noticed by any other naturaliſt †. In Carolina it is conſidered as a rattle-ſnake, although in fact its tail has no rattle, being only furniſhed with one ſcaley or horney appendage, about half an inch long, which is as hard as horn ‡. This Fiſher.

* The Water Viper. Cateſby, Carol. ii. t. 43.—Le Piſcivore, of the original French.

† In ſome popular works reſpecting North America, particularly a Narrative of the Captivity of Peter Williamſon, a very ſingular character, who lately died at Edinburgh, I remember to have ſeen an account of this animal, under the name of the Horned Snake, with all the ſtrange attributes reſpecting the horn on its tail mentioned in the text.—T.

‡ It is not at all improbable that this account of the horney appendage on the tail may be derived from a true rattle-ſnake, which has loſt, by accident, all the joints of its rattle but one.—T.

Fiſher. This peculiar configuration of the tail has given riſe to ſeveral fabulous ſtories. It has been pretended that this weapon was equally dangerous with the poiſon fangs; and that if the animal happen to ſtrike it into the tender bark of a tree, its flowers faded inſtantly, its verdure ſoon tarniſhed, and the tree ſpeedily dried up, decayed, and died.

According to Cateſby, the bite of this ſpecies is extremely dangerous. The head is thick, with a ſlender neck; and the upper jaw is armed with large and moveable poiſon fangs. The upper ſurface of the body is brown; and the belly and ſides of the neck black, with tranſverſe irregular yellow bars. It is ſometimes five or even ſix feet in length; yet is extremely nimble, and very expert in catching fiſh. In ſummer, it is often ſeen extended on the branches of trees which overhang the water, where it very alertly ſeizes its opportunity for catching birds, which happen to perch on the tree, or to precipitate itſelf on fiſh in the

water

water underneath. Should it miſs theſe at the firſt, it purſues them by ſwimming and diving with great agility; and having caught them, often of conſiderable ſize, drags them to ſhore, and devours them. From this circumſtance in its habits, we have aſſumed the trivial name which is placed at the beginning of this article. It is ſaid, likewiſe, to drop ſometimes, from the branches on which it hangs ſuſpended, upon the heads of people that happen to paſs below it in boats. Fiſher.

Sp. VI. *THE MUTE* *.

Mute.

LINNAEUS has given the name of crotalus mutus, or dumb rattle-snake, to this large serpent from Surinam, on account of its great resemblance to the crotaline genus; but it might have been placed in the genus of boa, as it agrees with these in the plates on its belly and tail, and in having no rattle at the end of the tail; for which cause Linnaeus has assigned the epithet or trivial name, of *dumb*.

The

* Crotalus Mutus. Syst. Nat. ed. Gm. i. 1082. G. 123.—Le Muet. Encyclop. Method.

In the original French, this serpent is placed in the genus of boa, with which it agrees in having single plates on the under surface of the tail similar to those on the belly. But, following Linnaeus, it is here placed in the genus crotalus; because, having a peculiar conformation of the tip of the tail, it has poison fangs, which are totally wanting in the boa genus, and belong to all the species of crotalus or rattle-snake. In the systematic catalogue it is placed in the former genus, under the name of dumb boa.—T.

The extremity of the tail is garniſhed by four rows of very ſmall ſcales, of which the angles are extremely ſharp *. The poiſon fangs in its upper jaw are uncommonly large. The back is marked by a chain of rhomboidal black ſpots, which run together; and the head has a black ſtreak behind each eye. The belly has two hundred and ſeventeen large plates, and the under ſurface of the tail thirty-four ſingle plates †. Mute.

FOURTH

* The want of rattle may have been altogether accidental in the ſpecimen examined by Linnaeus.—T.

† As an additional reaſon for placing this ſerpent in the preſent genus, it may be remarked, that the proportions between the belly and tail plates agree much more with thoſe in the other ſpecies of crotalus, than with thoſe in the different ſpecies of the boa genus.—T.

FOURTH GENUS.

SNAKES.

Having the under ſurface, both of the body and tail, covered with ſcales ſimilar to thoſe on the back.

Snakes. THE ſerpents of this genus are very different, in their external conformation, from thoſe which have been hitherto deſcribed. Inſtead of having the under ſurface of their bodies covered by broad tranſverſe plates, and one row or two of ſimilar plates on the under ſurface of the tail, they are every where covered by ſmall imbricated ſcales, like thoſe which are found on the backs of almoſt all the order of ſerpents. However, in ſome of the ſpecies of this genus, the middle row of ſcales, of the under

under ſurface of the body and tail, are ſenſibly larger than the reſt; and, in ſyſtematic arrangement, the number of ſcales in that middle row are counted, as an aſſiſtant ſpecific character, ſimilar ſo far to the large plates in the three preceding genera. Snakes.

In theſe genera which have been already treated of, the edges of the large plates catch hold of the ground, or other ſurface on which the animals crawl, aſſiſting them to move forwards, but reſiſting any retrograde motion: But the ſpecies of the preſent genus, being deſtitute of theſe plates, can move backwards much more readily than moſt other ſerpents; from which circumſtance, many of the ſnakes have been called amphiſbaenae, which ſignifies able to crawl both ways, by ſeveral travellers, and a good many have been tranſmitted from America and elſewhere, under that appellation; but that term ſeems better adapted for that genus of ſerpents in which the body is ſurrounded by rings, and to which, following Linnaeus, we have excluſively appropriated that term.

Snakes. As moſt exaggerated expreſſions have given riſe to groſs errors or ridiculous fables, ſo it has not been ſufficient to allege that ſnakes could move backwards almoſt as eaſily as forwards, but it has been pretended, That they could move with equal facility and ſwiftneſs for any length of time in either direction; That they had eyes at each extremity of their bodies, to enable them to ſee their way, either advancing or retreating; That they even had a complete head at either end, ſo that it was equally dangerous to ſeize them by one end as by the other; and that one head waked while the other ſlept, ſo that they were at all times equally to be dreaded by the ſmall animals on which they feed. It is enough to mention theſe fancies, without making any attempt to prove their abſurdity. It muſt however be acknowledged, that, in ſome ſpecies, there exiſt ſome ſlight grounds for this erroneous notion; as the tail is thick at the tip, and ſome ſpots may be conceived, on a ſlight and diſtant view, to repreſent

sent the eyes, mouth, and nostrils. Besides, their eyes are all very small and difficulty distinguishable. From the smallness of their eyes, the snakes have been named blind serpents by several travellers: But this appellation, although in fact it is not applicable to any serpent with propriety, is better fitted for the genus to which Linnaeus has given the name of Cæcilia, on account of the excessive smallness and indistinctness of their eyes, and which term has that signification. Snakes.

Sp. I. *THE ORVET* *.

THIS serpent is very common in many different countries, and is found in almost every part of the Old World, from Orvet.

* Anguis fragilis. Syst. Nat. ed. Gm. i. 1122. G. 126. Faun. suec. 289. Weigel, Nat. gesch. i. 50. n. 78. Laur. amph. 68. n. 125. t. 5. f. 2.—Caecilia vulgaris. Aldrov. serp. 215.——Caecilia Gesneri. Imperat. nat. 916.

Orvet. Sweden to the Cape of Good Hope. It reſembles very much an oviparous quadruped, or lizard, which we have already deſcribed under the name of ſeps, and which has conſiderable analogy to this genus. The ſeps hardly differs from the ſnakes, except in its four minute legs, and may be ſaid to crawl like a ſnake, rather than to walk like a lizard.

The top of the head, in the orvet, is covered by nine large ſcales, arranged in four rows, but differently diſpoſed from thoſe of moſt vipers. The firſt row has only one ſcale, the ſecond two ſcales, and the third and fourth row have three each. The ſcales which cover the whole body, both above and underneath, are very ſmall, ſix ſided, plain, and ſhinning; reddiſh brown in the middle,

916.—Caecilia Typhlus. Raj. quadr. 289.—Typhlops, Caecilia, Blind-worm, Slow-worm, Long-cripple. Sibbald, Scot. illuſt. Brit. Zool. iii. 33. pl. 25. No. 15.—Orvet. Bomare, dict. d'Hiſt. Nat. Encyclop. Method.—Couleuvre commune, Serpent de verre, Anvoye, Orvet, in different parts of France.

middle, and edged with whitiſh, forming a great number of very ſmall ſpots over the whole body. There is one larger ſpot on the top of the muzzle, and another on the back of the head, from which two narrow longitudinal brown or black ſtripes proceed to the tail; and a cheſnut brown longitudinal ſtripe extends, from behind each eye, along each ſide. The belly is very dark brown, and the throat is marbled with white, black, and yellowiſh. Orvet.

All theſe colours, however, are ſubject to variations, according to climate, and perhaps from age or ſex; but the orvet is diſtinguiſhable, from ſeveral other ſpecies of the genus, by the length of its tail, which equals, and ſometimes exceeds, that of the body. The opening of the mouth extends beyond the eyes. The two bones which form the lower jaw are not ſeparated from each other, as in moſt ſerpents; in which circumſtance the orvet reſembles the ſeps and other lizards.

Orvet. The teeth are ſhort, ſlender, hooked, and turned towards the throat. The tongue is notched in a creſcent form. The eyes have been ſaid to be ſo ſmall as to be hardly diſcernible; but, although they are really ſmaller than in many ſerpents, they are ſufficiently viſible, and are black and very bright. The ſcales on the lips are no larger than thoſe on the back; and none of thoſe on the under ſurface of the body are diſtinguiſhably larger than the reſt. There are uſually an hundred and thirty-five rows of ſcales on the belly, and an equal number below the vent. It ſeldom exceeds three feet long.

Schwenkfeld, in his account of the Sileſian reptiles, ſays that the orvet is conſidered as venomous in that country; and ſeveral authors have alleged that its bite is extremely dangerous. But it is entirely deſtitute of poiſon fangs, which might ſuffice to ſhew that it has no venom; and this is farther proved by direct experiments made by Laurenti. According to that naturaliſt,

no

no irritation whatever can induce it to bite; but, in this circumſtance, it contracts itſelf with ſuch force as to become as ſtiff as a piece of wood. In making his experiments, he was obliged to open its mouth forcibly, to endeavour to make it bite a dog; but the teeth were too ſhort and ſmall to be able to wound its ſkin. Small birds wounded by its teeth, ſhewed no ſymptoms of venom. The naked ſkin of a pigeon was put between its teeth, which it held faſt for a conſiderable time, and ſmeared with the moiſture of its mouth; but the wounds were ſoon healed, and gave no marks of having received any venom. Orvet.

When, through fear or anger, the muſcles of the orvet are ſo contracted as to ſtiffen its whole body, as already mentioned, it is not ſurpriſing that it ſhould eaſily break in pieces, by the blow of a ſtick or wand. Its fragility or brittleneſs, from which ſome of its trivial names are derived, are occaſioned by this ſtate of contraction and rigidity, according to Laurenti, who has given great

Orvet. great attention to the nature of this ſerpent. Beſides, its vertebrae, like thoſe of moſt ſmall ſerpents and lizards, are of a very fragile nature; and the fibres of its muſcles are very eaſily ſeparable. From this property of the orvet, Linnaeus has called it the Anguis fragilis, or brittle ſnake; and it is named by ſome writers le Serpent de verre, or glaſs ſerpent.

As the orvet is found in Sweden and Scotland, it would ſeem not to be ſo much incommoded by cold as moſt other ſerpents: But it is likewiſe found, in tolerable abundance, in moſt of the temperate and even warm countries of Europe. It has the ſame enemies with other ſerpents; and is peculiarly preyed on by ſtorks, having neither ſize, ſtrength, nor venom to oppoſe to their attacks.

The orvet propagates like other ſerpents; the male and female twiſting round each other, and continuing conjoined for a conſiderable time. They have been obſerved for more than an hour in this ſtate. The young are hatched

hatched within the body of the mother, and come into the world perfectly formed; in which circumstance, though not venomous themselves, they agree with the venomous species of vipers. M. de Sept-Fontaines, having opened two female orvets, found ten young ones in one which was thirteen inches long; and in the other, which was a foot in length, there were seven. These young orvets were perfectly formed, and only differed from their mothers in size, and having paler colours. The largest of these were twenty-one lines long, and the smallest eighteen lines. A female, which was kept in confinement by that excellent observer of nature, was a month in his custody before she produced her young. Orvet.

In the southern provinces of France, the orvet usually makes its appearance with a new skin about the beginning of July. It gets rid of its old skin the more readily as it happens to have the convenience of various substances to rub against. Sometimes the old skin, in coming off, is only reversed

Orvet. ed as far as the vent, and the tail ſlips out from its part like a ſword from its ſcabbard.

It feeds on worms, beetles, mice, ſmall rats, frogs, and toads. As it ſwallows its food without chewing, worms, particularly, ſometimes get to its ſtomach alive and unhurt. Accordingly M. de Sept-Fontaines once found a living earth worm in the ſtomach of a young orvet, as thick as a quill and ſix inches long. Although naturally voracious, the orvet, like other ſerpents, can live a long while without food. Some in the poſſeſſion of M. de Sept-Fontaines have died of innanition, at the end of more than fifty days, although food which, in a ſtate of freedom they would have devoured with avidity, was within their reach.

The orvet uſually lives in underground holes, which it has dug, or at leaſt enlarged, with its muzzle: But, having occaſion to breath, it frequently comes out from its retreat. Even in winter, it ſometimes makes holes through the ſnow, and raiſes its noſe above the ſurface; as the temperature of its

ſubterraneous

subterraneous retreats is for the moſt part sufficiently high to prevent it from becoming entirely torpid. After the return of warm weather, it ſpends a great part of the day out of its hole; but ſeldom goes far from it, that it may be ready to eſcape from any danger. It often remains for a long time reſting on its tail, rolled up in a ſpiral. Its motions are quick, and in general it has no diſagreeable odour. It is extremely tenacious of life, inſomuch that, when broken in pieces by blows, the fragments continue to move for hours. It uſually frequents deep valleys, heaths, woods, way ſides, and heaps of rubbiſh, and is perfectly innocent. Orvet.

Sp.

Sp. II. *THE ERYX* *.

Eryx. THIS ſnake has a good deal of reſemblance to the orvet, of which perhaps it ought only to be conſidered as a variety. The upper parts of the body are greyiſh brown, with three longitudinal duſky lines, from the head to the tail; the middle ſtripe narrow, and that on each ſide rather broader. The belly is bluiſh lead-colour, with ſmall white ſpots diſpoſed irregularly. The eyes are very ſmall, and are placed in oblong furrows above the opening of the mouth. The upper jaw is a little more advanced than the other. The teeth are rather long in proportion to its ſize, equal, and ſlightly curved towards the throat. The ſcales

* Anguis Eryx. Syſt. Nat. ed. Gm. i. 1121. G. 126. Gronov. muſ. ii. 35. n. 9. Boddaert, nov. act. Caeſ. vii. 25. n. 4.—Aberdeen Snake. Brit. Zool. iii. 33. pl. iv. n. 12.—New Snake. Pennant, Tour in Scotl. 1769. Ap.—Eryx. Encyclop. Method.

scales are rounded, somewhat convex, plain, and bright. The tail is rather longer than the body. The belly has an hundred and twenty-six, and the under surface of the tail an hundred and thirty-six, rows of scales *. It is found in America and in Scotland, particularly Aberdeenshire. Pennant says that its usual length is fifteen inches. Eryx.

Sp.

* It would appear that Dr David Skene of Aberdeen had communicated this species both to Linnaeus and to Pennant. In the specimen sent to Linnaeus the numbers were 120—137; Pennant does not notice the numbers.

Sp. III. *THE MELEAGER* *.

Meleager. THIS ſpecies is found in India. The trivial name here uſed is derived from the diſtribution of its colours, reſembling in ſome meaſure thoſe of the Pintado, or Guinea-fowl; the upper parts of the body being of a greeniſh colour, with many longitudinal rows of black or brown dots. It has an hundred and ſixty-five rows of ſcales on the belly, and thirty-two on the under ſurface of the tail. In the Syſtem of Nature it is conſidered as allied to the Lacerta bipes, or Seps of this work.

Sp.

* Anguis Meleagris. Syſt. Nat. ed. Gm. i. 1119. G. 126. Muſ. Ad. Fr. ii. 48. Laur. amph. 68. n. 124. Seba, Muſ. ii. t. 21. f. 4. La Peintade. Encyclop. Method.
β. Anguis fuſco-punctatus. Laur. amph. 68. n. 124. β.
γ. Anguis longicauda. Laur. amph. 69. n. 130.

Sp. IV. *THE MILIARY SNAKE* *.

Miliary Snake.

IN the countries near the Caſpian, this ſnake was obſerved by Pallas: It has conſiderable reſemblance to the preceding ſpecies, of which perhaps it may only be a variety. The individual he deſcribes was fourteen inches long, of which the tail meaſured two inches, and about the thickneſs of a mans little finger. The head is grey, mixed with black; the body black, with a great number of grey dots on the back, and whitiſh on the ſides. The tail is cylindrical, ſomewhat more ſlender than the body, and variegated with white. The belly has an hundred and ſeventy rows of ſcales, and the under ſurface of the tail thirty two rows.

* Anguis miliaris. Syſt. Nat. ed. Gm. i. 1120. G. 126. Pall. it. ii. 718.

In the original this is conſidered merely as a variety of the former, but is here placed ſeparately, on the very high authority of the celebrated Pallas.—T.

Sp. V. *THE CYLINDRICAL SNAKE* *.

Cylindrical Snake.

THIS ſpecies is very common both in India and America, but is never found in the cold or even in the temperate latitudes. Its head, which is ſomewhat convex above and concave underneath, is hardly diſtinguiſhable from the reſt of the body, except by three ſcales on its upper part, a little larger than the reſt. The teeth are numerous, and, being all equal in ſize, and having no poiſon fangs, we may conclude that it has no venom. The ſcales over the whole body are whitiſh, with ruſty brown edges,

* Anguis Scytale. Syſt. Nat. ed. Gm. i. 1121. G. 126. Amoen. ac. i. 296. Muſ. Ad. Fr. i. 21. f. 6. f. 2. Gronov. Muſ. ii. n. 4. Weigel. Naturf. Geſ. i. 46. n. 69.—77. Boddaert. nov. act. Caeſ. vii. 25. n. 2. Seba, muſ. ii. t. 2. f. 1.—4. & t. 7. f. 4. Laur. amph. 70. n. 133.—Le Rouleau. Encyclop. Method.

β. A. Scytale faſciata. Laur. amph. 70. n. 134.

γ. A. Scytale caerulea. Laur. amph. 70. n. 135. Seba, muſ. ii. t. 30. f. 3. Merian, Surin. t. 69.

edges, which form brown circular bars. The size of this snake, when full grown, is not completely ascertained; but, from the writings of naturalists, and by the specimens in the royal cabinet, we should presume it hardly ever exceeds two or three feet in length, and half an inch diameter. The tail is very short in proportion to the body, being seldom more than a thirtieth part of its length. It feeds on worms and insects, particularly ants. The belly has ordinarily an hundred and forty rows of scales, and the tail thirteen rows *. Cylindrical Snake.

"In the last edition of the System of Nature, two varieties of this species are inserted, from Laurenti, as quoted in the foot note at the commencement of this article. The first of these, by the short description,

 seems

* Besides these numbers, the System of Nature enumerates the following.—T.

227—14	227—12	226—12
219—13	223—13	232—11
224—11	224—10	227—13
228—11.		

Cylindrical Snake.

seems to vary little or nothing from the account already given; being white, with brown transverse or circular bars. The second has alternate circular bars of white and dark blue. The description quoted from Boddaert, as a synonime to the chief species, seems to refer to a variety differing from all the three, as it is said to be variegated with black and white."—T.

Sp. VI. *THE VIPERINE SNAKE**.

Viperine Snake.

THIS species was discovered in Egypt, by Hasselquist. The only description given is, that it is beautifully variegated with pale or whitish and brown. The belly has an hundred and eighty rows of scales, and the under surface of the tail eighteen rows.

"From

* Anguis colubrinus. Syst. Nat. ed. Gm. i. 1119. G. 126. Hasselquist, iter 320. n. 65.—Le Colubrin. Encyclop. Method.

"From the trivial name affixed to this ſnake, indicating a reſemblance to the viper genus, it is probable that the middle ſcales on the belly and tail are broader than the reſt, as is ſaid to be the caſe in the next ſucceeding ſpecies."—T. Viperine Snake.

Sp. VII. *THE ARROW SNAKE* *.

THIS ſpecies, likewiſe, is introduced on the authority of Haſſelquiſt, by whom it was diſcovered in Egypt. No farther deſcription is given, except that the belly ſcales are ſomewhat broader than thoſe on the back. It has an hundred and eighty-ſix rows of ſcales on the belly, and twenty-three rows on the under ſurface of the tail. Arrow Snake.

"From the trivial name, by which this ſpecies is diſtinguiſhed, its motions are probably exceedingly rapid and ſudden."—T.

* Anguis jaculus. Syſt. Nat. ed. Gm. i. 1120. G. 126. Haſſelqu. it. 319. n. 64.—Le Trait. Encyclop. Method.

Sp. VIII. *THE HORNED SNAKE**.

Horned Snake.

HASSELQUIST, who discovered this species in Egypt, gives it the trivial name of cerastes, from its resemblance to that species of the viper genus †, in having, like it, a kind of horns on its head: But these are extremely different in the two serpents; being, in the cerastes, real horney appendages, attached only to the skin of the head; while, in the horned snake, they are actually two teeth belonging to the upper jaw, which are reversed, as to the natural situation of teeth, and, piercing the upper lip, have the external appearance of being

* Anguis Cerastes. Syst. Nat. ed. Gm. i. 1120. G. 126. Hasselquist, it. 320. n. 66. D°. in Act. Upsal. A°. 1750. p. 28.—Le Cornu. Encyclop. Method.

† These parallelisms of trivial names are inconvenient, and apt to produce confusion; cornutus or cerastoides would have equally pointed out the resemblance, and could not lead to error or mistake.—T.

being horns *. No farther deſcription is given, except that it has two hundred rows of ſcales on the belly, and fifteen rows on the under ſurface of the tail. Horned Snake.

Sp. IX. *THE MIGUEL* †.

IN Paraguay and ſeveral other countries of South America, this ſpecies is known by the trivial name of miguel. Its ſcales are all ſmooth and bright. The upper part of the body is yellow; having one longitu- Miguel.

* The claſs of quadrupeds is not without example of this reverſed, and horn-like, diſpoſition of part of the teeth. The Babyrouſſa is an inſtance.—T.

† Anguis maculatus. Syſt. Nat. ed. Gm. i. 1120. G. 126. Muſ. Ad. Fr. i. t. 21. f. 3. Gron. muſ. ii. 53. n. 5. Seba, muſ. ii. t. 100. f. 2. Laur. amph. 72. n. 140.—Le Miguel. Encyclop. Method. Bomare, Dict. d'Hiſt. Nat.

Anguis teſſalatus. Syſt. Nat. ed. Gm. i. 1123. G. 126. Laur. amph. 72. n. 142.

β. Anguis decuſſata. Laur. amph. 72. n. 141. Seba, muſ. i. t. 53. f. 7.

Miguel. dinal brown ſtripe, and ſometimes three, with tranſverſe and very narrow brown bars. The upper part of the head has nine large ſcales. The belly has two hundred rows of ſcales, and there are twelve rows on the under ſurface of the tail. A ſpecimen of this ſpecies in the royal cabinet, is twelve inches long, of which the tail is only a quarter of an inch.

"The laſt edition of the Syſtem of Nature, quoting Laurenti, as in the foot note at the head of this article, makes a ſeparate ſpecies of the A. teſſalatus, but apparently without reaſon, as it does not even ſeem to poſſeſs any diſtinguiſhing characters, ſufficient even to form a different variety: And, what is ſingular, the ſame plate and figure are quoted from Seba for both."

"In the Syſtem of Nature, quoting likewiſe from Laurenti, a ſeemingly diſtinct variety is introduced, which is not noticed by our author. It may be named the Aſiatic miguel, as it is ſaid to come from Aſia, while the one already deſcribed may be called

ed the American or Paraguayan miguel. The Aſiatic miguel is deſcribed as having both longitudinal and tranſverſe red ſtreaks, decuſſating or croſſing each other, which are dotted with black."—T. Miguel.

SP. X. *THE NETTED SNAKE* *.

THIS American ſnake has the head covered by large ſcales. The ſcales, on the back and ſides, are all white in the middle, with brown edges, which produce an appearance as if the body were covered over by a brown net. The belly has an hundred and ſeventy-ſeven rows of ſcales, and the under ſurface of the tail is covered by thirty-ſeven rows. Netted Snake.

SP.

* Anguis reticulatus. Syſt. Nat. ed. Gm. i. 1120. G. 126. Gronov. muſ ii. 54. n. 7. Laur. amph. 69. n. 128. Scheuchz. phyſ. ſacr. t. 747. f. 4.—Le Reſeau. Encyclop. Method.

Sp. XI. *THE BROWN-AND-YELLOW SNAKE**.

Brown-and-yellow Snake.

THIS ſnake is found in great numbers in the woods of Carolina and Virginia, where it has been obſerved by Garden and Cateſby. It is not conſidered in theſe countries as being venomous; and ſeems leſs ſenſible to the influence of cold than the other ſerpents of America, as it makes its appearance a good deal earlier in ſpring. It is equally fragile with the orvet, already deſcribed; and, like it, breaks into fragments with the ſlighteſt ſtroke.

The length of this ſnake ſeldom exceeds eighteen inches, and the tail is nearly three fourths of the whole length; being joined to the ſhort body by a hollow circular furrow or grooved future. The upper ſurface of

* Anguis ventralis. Syſt. Nat. ed. Gm. i. 1122. G. 126. Garden.—Caecilia Maculata, or Glaſs ſnake. Cateſby, Carol. ii. t. 59,—Le Serpent de verre. Encyclop. Method.—Le Jaune-et-brun, in the original.

of the body is greeniſh grey or brown, with a great number of very ſmall yellow ſpots, regularly arranged; and the Linnaean deſcription ſeems to imply that the ſcales are ridged. The ſides have each a black longitudinal ſtreak. The belly is yellow, having an hundred and twenty-ſeven rows of ſcales, and the tail has two hundred and twenty-three rows. Brown-and-yellow Snake.

Sp. XII. *THE THIN-TAILED SNAKE**.

THIS ſnake differs materially from all thoſe hitherto deſcribed, in having its tail compreſſed at the ſides, and ending in a ſharp point. The general colour of the body and tail is pale, or whitiſh, with tranſverſe brown bars. The belly has two hundred rows of ſcales, and the under ſurface of Thin-tailed Snake.

* Anguis laticauda. Syſt. Nat. ed. Gm. i. 1121. G. 126. Muſ. Ad. Fr. ii. 48.—Laticauda imbricata. Laur. amph. n. 141.—La Queue-lancéolée. Encyclop. Method.

Thin-tailed Snake.

of the tail fifty rows. It is found in Surinam.

Perhaps the ſerpent with a flat tail, which was ſeen by Sir Joſeph Banks on the coaſts of New Holland, New Guinea, and China, and which has been deſcribed by Voſmaer, may be referred to this ſpecies. It ſwam about and dived in the ſea, with great facility, during a calm *.

Sp. XIII. *THE RED SNAKE* †.

Red Snake.

A Specimen of this ſpecies was tranſmitted, by M. de la Borde, to the royal cabinet, from Cayenne; where it is named le ſerpent de corail, or coral ſerpent, by the inhabitants, on account of the beautiful red colour of its back ſcales: But we have not thought proper to continue that appellation, leſt it ſhould be confounded with

* See Serpent à large-queue. Bomare, Dict. d'Hiſt. Nat.

† Le Rouge, of the original French.

with the coralline, already deſcribed in the viper genus. Red Snake.

The whole body of this ſnake is a fine red, darker on the back, the ſcales being hexagonal and edged with white. On this fine red ground, there are a number of blackiſh tranſverſe bars, which extend from the back, round the belly. The middle range of ſcales on the belly and tail, as in ſeveral other ſpecies of this genus, are ſomewhat broader than the reſt. Our ſpecimen meaſured eighteen inches, of which the tail was only half an inch. The middle range on the belly conſiſted of two hundred and forty ſcales, and on the under ſurface of the tail of twelve ſcales.

Though this ſnake is extremely beautiful, when alive, it muſt be avoided with great care; as, according to M. de la Borde, its bite is venomous and extremely dangerous. It is ſometimes called the Guiana viper; to which name it ſeems to have ſome right, notwithſtanding its generic characters, as, along with the ſpecimen in the royal

Red Snake.

royal cabinet, there were ſent two young red ſnakes, which were taken completely formed from the mother.

The ſerpent mentioned by Gumilla*, under the name of the coral ſerpent, may probably be referred to this ſpecies. "We muſt not, ſays he, omit the coral ſerpent, which is ſo called on account of its fine ſcarlet colour, variegated with black, grey, white, and yellow ſpots. This ſerpent can ſubſiſt in all kinds of climates, although its colours are liable to variety from the change; but its venom is equally virulent in all, and there is no ſerpent, except the macaurel, whoſe bite is more dangerous. There are, however, ſeveral remedies againſt the dangerous effects of its bite, which we ſhall here enumerate."

"The firſt of theſe is tobacco, which is an effectual remedy againſt the bite of every kind of ſerpent. Some of it muſt be chewed; one part of which is to be ſwallowed, and the reſt applied for three or four days to

* Hiſt. Nat. de l'Orenoque. Lyon, 1758. iii. 89.

to the wound, after which there is no danger to be apprehended. I have several times made the experiment on persons that had been bitten, and always with success. Besides, this plant kills serpents, as I am well assured by the following experiment. Having stunned a serpent, by a blow on the head, and secured it, by means of a forked stick, I forced open the mouth and introduced some chewed tobacco; it was immediately seized with an universal trembling, which ended only with its life." Red Snake.

"A second remedy is the oriental stone; which is nothing more than a piece of a deers horn, calcined to blackness. When this is applied to the wounded part, it sticks of itself, and sucks out all the venom; but it is necessary sometimes to apply six different pieces in succession; and it is always more secure to cause the patient chew tobacco at the same time."

"If the part wounded will admit their application, four cupping glasses are successively applied to the wound. The first pre-

pares

Red Snake.

pares the part for the operation of the reſt; the ſecond ſucks out a yellow liquor; the third brings a ſimilar liquid, tinged with blood; and the fourth ſucks pure blood, after which the whole venom is removed."

"Another remedy conſiſts of a large doſe of brandy, mixed with gun powder; and uſually after the third doſe, the venom loſes all its virulence."

'Perhaps we ſhould refer to this ſpecies, 'a Braſilian ſnake introduced into the Syſ-'tem of Nature from Seba, and there call-'ed the coralline ſnake*. All that is men-'tioned reſpecting it is, that the general 'colour is red, with tranſverſe paler bars, 'the tips of all the ſcales being black.'—T.

Sp.

* Anguis corallinus. Syſt. Nat. ed. Gm. i. 1123. Laur. amph. 71. n. 136. Seba, muſ. ii. t. 73. f. 2.

Sp. XIV. *THE NASAL SNAKE* *.

THIS ſerpent was brought from Surinam, and is deſcribed by Weigel, a German naturaliſt. It is particularly diſtinguiſhed by the length of its muzzle; the upper jaw being conſiderably longer than the lower, ſo that the mouth is placed ſomewhat under the muzzle. The individual deſcribed by Weigel was about a foot long, of which the tail was leſs than half an inch. The upper part of the body was greeniſh black; the under parts, the ſides, the tips of the muzzle and tail, and a broad oblique bar on the tail, being yellow. It had no teeth; the eyes were placed on the top of the head, inſtead of its ſides. The trunk of the body is ſurrounded by twenty peculiar

Naſal Snake.

* Anguis naſutus. Syſt. Nat. ed. Gm. i. 1120. G. 126.—Anguis roſtratus, Languaſiege, Schuppenſchlange. Weigel, Schr. der. Berl. Naturf. iii. 190.—Le Longnez, in the original.

Nasal Snake.

liar rows of hexagonal scales; but the middle range on the belly and tail are not larger than the other scales. The belly has two hundred and eighteen rows of scales, and the under surface of the tail twelve rows. The tail ends in a blunt rigid tip.

Sp. XV. *THE FLAT-TAILED SNAKE**.

Flat-tailed Snake.

THIS species has considerable resemblance to the thin-tailed snake already described, the tails of both being flattened or compressed at the sides; but, in the present species, the tip of the tail is rounded, whereas it ends in a sharp point in the former.

The head of this species is smooth and elongated, and the jaws have no teeth. The scales on the whole body are rounded, and do not lap over each other; and they are so

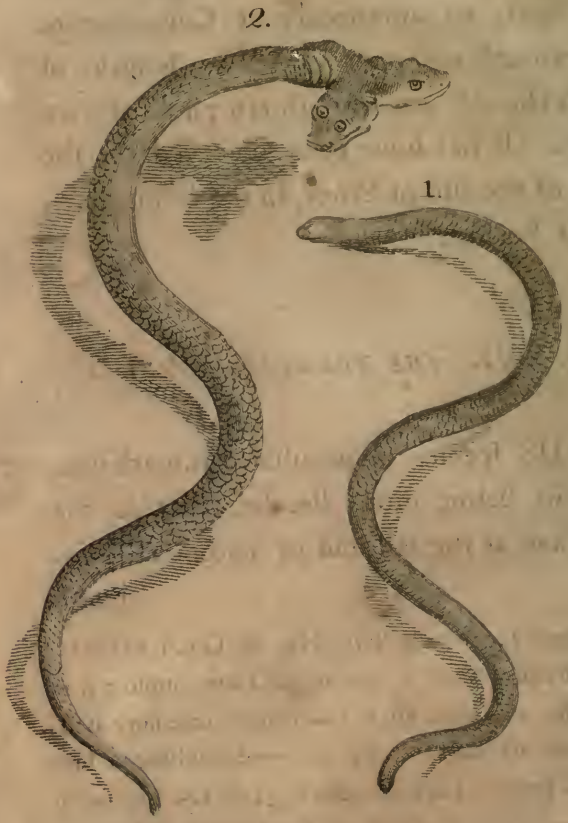
* Anguis platuros. Syst. Nat. ed. Gm. i. 1122. G. 126.—La Queue-plate. Encyclop. Method.—La Plature, of the original French of this work.

...ips of hexagonal scales, but the mid-
...dle range on the belly and tail are in 2 larg-
...er than the other series. The belly has
...two keeled and sulcated rows in front,
...and the under surface of the tail in two
...rows. The tail ends in a short rigid tip.

...

THIS species has considerable resem-
...blance to the thin-tailed in shape,
...although the tails of both being flattened
...is compressed at the sides; but in the pre-
...sent species the tip of the tail is rounded,
...whereas it ends in a sharp point in the for-
...mer.

The head of this species is smooth and
...shiny, and the eyes have no teeth. The
...scales on the neck are rounded, and
...on the eyes are very small, and they are
...



1. Worm like Snake. Sp. 16. 2. Monstrous Serpent with Two Heads.

D. Lizars sculpt

so extremely minute that they cannot be counted. The upper surface of the body is black, and the under surface white. This species was first described by Linnaeus,* from a specimen in the collection of M. Ziervogel, an apothecary at Copenhagen. It measured eighteen inches in length, of which the tail was one nineth part, or two inches. It has since been observed on the shore of the isle of Pines, in the South Seas, by Mr Forster. Flat-tailed Snake.

Sp. XVI. *THE WORMLIKE SNAKE**.

THIS species is peculiarly remarkable, in being more slender towards the head than at the tail end of its body; insomuch Wormlike Snake

* Anguis lumbricalis. Syst. Nat. ed. Gm. i. 1121. G. 126. Gronov. Mus. ii. 52. n. 3. Laur. amph. 73. n. 144. Seba, mus. i. t. 86. f. 2.—Anguis unicolor. Boddaert, nov. act. Caes. vii. 24. n. 1.—Amphisbaena subargentea. Brown, Jamaica. 460. t. 44. f. 1.—Anilios, in Cyprus.—Serpent d'oreille, or Ear serpent, in India.—Le Lombric. Encyclop. Method.

Worm-like Snake

much that one would be diſpoſed to miſtake the tail for the head, if the diſpoſition of the ſcales is not attended to; and more eſpecially as the head is not thicker than that part of the body to which it is attached, and as the eyes are ſcarcely obſervable ſmall black points, and are covered by a membrane, as in the genus of amphiſbaena.

The muzzle is blunt and rounded, having two exceſſively ſmall holes or noſtrils. The mouth is placed at ſome little diſtance behind, and on the under ſide of, the muzzle, and is very ſmall, meaſuring only two lines in circumference, in the largeſt ſpecimens of the royal cabinet. The under jaw, which is a good deal ſhorter than the upper, is ſo exactly applied to it, when the mouth is ſhut, that it requires great attention to diſcover its place. We have not been able to diſtinguiſh any teeth in all the ſpecimens we have examined. In Jamaica it is ſuppoſed venomous, but without any reaſon. The tongue is very ſmall, and, in

our

our ſpecimens, was cloſely applied to the upper jaw, as if glued to it. Worm-like Snake

The whole body is almoſt cylindrical, except at the head, where it is a little flattened above and below. It is entirely covered with very ſmall and ſmooth imbricated ſcales, which are extremely bright, and all of one ſize and figure on every part of the head, body, and tail, except three ſcales a little larger in one row on the top of the muzzle, and a ſimilar row on its under ſurface, before the opening of the mouth. The whole body is of a yellowiſh white. The vent is placed very near the extremity of the body, and is very narrow, and about half a line in length. It is ſo ſmall as not to be perceptible, without bending the animals body at the place to make it open. The tip of the tail is terminated by a hard pointed ſcale.

We are ignorant of the ſize to which this ſpecies grows; but the largeſt ſpecimen we have ſeen, which was ſent from Cyprus, was ſcarcely nine inches long, of which the

Worm-like Snake

tail was only an eighth part of an inch; and the diameter of its body was a sixth part of an inch. It is likewise found in America and India. From the latter country there is an extremely small serpent in the royal cabinet, not five inches long, and only one-twelfth of an inch in diameter, which in every respect resembles this species, and is evidently a young individual. It was sent under the name of *Serpent d'oreille*, or ear serpent; but for what reason it has got that appellation does not appear*.

From the structure of the wormlike snake, its great power of twisting itself in every direction, and the ease with which it can insinuate itself into the smallest holes, it must have considerable analogy in its habits to the orvet already described; and it likewise resembles a good deal several real worms, particularly in the small size of its vent, and the position of its mouth; and may be considered

* Probably from insinuating into the ears of people, as the insect named ear-wig is so called in English from a similar circumstance.—T.

sidered as a connecting link between the two orders of worms and serpents. Worm-like Snake

This species has two hundred and thirty rows of scales on the belly, and only seven rows on the under surface of the tail.

Sp. XVII. *THE STRIATED SNAKE* *.

"THE only account of this species is that it is surrounded by narrow transverse lines or streaks. Its size or the place of its abode are not mentioned. The belly has an hundred and seventy-nine rows of scales, and the tail seven rows on its under surface: From these proportions its tail must be very short, and it may be considered as allied to the last described species."—T. Striated Snake.

* Anguis striatus. Syst. Nat. ed. Gm. i. 1119. G. 126. Gronov. Mus. ii. 53. n. 6. Boddaert, nov. act. Caes. vii. 25. n. 3.

This and all the subsequent species of this genus are added, from the last edition of the System of Nature, by the Translator.

Sp. XVIII. *THE LINEATED SNAKE* *.

Lineated Snake.

"ALL that is mentioned of this ſpecies is, that it is blackiſh underneath and white above, having a line extending the whole length of the middle of the body."—T.

Sp. XIX. *THE CLEVES SNAKE* †.

Cleves Snake.

"THIS ſpecies is ſaid to be very common in the dutchy of Cleves. It is of a greyiſh brown colour, having a heart ſhaped ſhield of larger ſcales on the front, or top of the head. Perhaps it is only a variety of the orvet, and perhaps the lineated ſnake laſt deſcribed is in the ſame predicament;

* Anguis lineatus. Syſt. Nat. ed. Gm. i. 1122. G. 126 Laur. amph. 68. n. 126.

† Anguis clivicus. Syſt Nat. ed. Gm. i. 1122. G. 126. Geſn. ſerp. 69. Laur. amph. 69. n. 129.

dicament; as both follow immediately after that ſnake in the ſyſtematic liſt of Laurenti."—T. Cleves Snake.

Sp. XX. *THE ANNULATED SNAKE* *.

"THE ground of this ſnake is white, with brown tranſverſe bars, which are ſtraight and diſtinct on the back, but run into one another on the belly. The tail is ſlender, and has two ranges of imbricated ſcales on its under ſurface. Its ſize, numbers, and place of abode, are not mentioned.' —T. Annulated Snake.

Sp.

* Anguis annulatus. Syſt. Nat. ed. Gm. i. 1122. G. 126. Laur. amph. 69. n. 131.

Sp. XXI. *THE BLACK SNAKE* *.

Black Snake.

"THIS ſpecies is ſaid to come from Ceylon. It is of a black colour, with white tranſverſe bars, the tips of the white ſcales being black."—T.

Sp. XXII. *THE RUFOUS SNAKE* †.

Rufous Snake.

"THE general colour of the upper part of the body, in this ſnake, is rufous or reddiſh brown, with tranſverſe interrupted white ſtreaks. The under ſurface is variegated."—T.

Sp.

* Anguis ater. Syſt. Nat. ed. Gm. i. 1123. G. 126. Laur. amph. 71. n. 137. Seba, muſ. ii. t. 73. f. 3.

† Anguis rufus. Syſt. Nat. ed. Gm. i. 1123. G. 126. Laur. amph. 71. n. 138.

Sp. XXIII. *THE HEPATIC SNAKE**.

Hepatic Snake.

"THIS ſpecies is deſcribed as of a liver colour, waved or mottled on the ſides, and having roundiſh white ſpots, with a line along the middle of the back. It came from Surinam."—T.

Sp. XXIV. *THE WHITE SNAKE*†.

White Snake.

"ALL that we are told of this ſnake, which is deſcribed by Linnaeus from a ſpecimen in the collection of Prince Adolphus, is that it is entirely white, and grows narrower at both ends."—T.

FIFTH

* Anguis hepaticus. Syſt. Nat. ed. Gm. i. 1123. G. 126. Laur. amph. 72. n. 139.

† Anguis albus. Syſt. Nat. ed. Gm. i. 1123. G. 126. Muſ. Ad. Fr. t. 14. f. 2. Laur. amph. 73. n. 143.

FIFTH GENUS.

AMPHISBAENA.

Having the body and tail ſurrounded by ſcaley rings.

Amphiſbaena.

THE genus of amphiſbaena is very eaſily diſtinguiſhable from all the ſerpents of which we have hitherto treated. The ſerpents which belong to this genus are entirely covered by ſcales of an almoſt ſquare form, more or leſs regular, which are arranged in regular tranſverſe rings, ſurrounding the whole body and tail. The ſcales in theſe rings join together at their ſides. The upper and under ſurfaces of the body, or the back and belly, are ſo exactly alike, that, when the head and vent are concealed, it is impoſſible to ſay whether

ther the animal is in its natural poſture or turned on its back. Were it not for the ſituation of the head, and that the ſpine is nearer the back than the belly, it might be ſuppoſed they could crawl with equal eaſe on the back as on the belly. From the ſtructure of theſe ſcaley rings, they have great liberty in turning and twiſting their bodies in all directions. From it likewiſe, they are enabled to crawl with almoſt equal eaſe and quickneſs backwards as they can forwards; and from this circumſtance they have got the name of amphiſbaena, which ſignifies advancing both ways. Amphiſbaena.

As the tail is very thick, and has a rounded end, and as the animal frequently carries it raiſed up from the ground, and moving in a ſimilar manner with the head, the ſame idea has been entertained of this ſerpent that has been already mentioned reſpecting ſnakes, that ſome had a head at each extremity of the body. This fable has been extended, and it is alleged that, when one of theſe two headed ſnakes is cut

in

Amphisbaena.

in two, the two heads ſearch for each other, and, when they meet, they unite again at the cut place, the blood ſerving as glue to join them together. If cut in three parts, each head finds out the end of the middle piece which originally belonged to it, and all three unite again as perfectly as before it was cut. The only ſure way to kill one, is to cut off both heads, and hang them by a ſtring to a tree: And even this method is not perfectly certain; for, if they are not eaten by birds of prey, the ſtring at laſt rots, and the two dried heads fall down. The firſt rains which fall reſtore their moiſture and life, and they ſet out in ſearch of each other and unite again. As a corrolary to all this, the moſt certain ſpecific for uniting broken bones is the powder of a dried amphiſbaena *. It is only neceſſary to mention ſuch ridiculous fables, which amply refute themſelves, yet have been gravely told by thoſe who ought to have known better.

Sp.

* See Hiſt. Nat. de l'Orenoque. iii. 86.

Sp. I. *THE SOOTY AMPHISBAENA* *.

Sooty Amphisbaena.

THIS ſpecies is ſo named on account of its colour, which is almoſt black, and variegated with white. It grows uſually to the length of one or two feet, of which the tail never exceeds an inch or an inch and a quarter. The eyes are exceedingly ſmall, and covered in ſuch a manner by a membrane as to be hardly perceptible, from which the amphiſbaena, like the ſnake, has been called the blind ſerpent. The top of the head is covered by ſix large ſcales, in three rows of two each. Though ſome travellers have alleged that it is venomous, we

* Amph. fuliginoſa. Syſt. Nat. ed. Gm. i. 1123. G. 127. Amoen. ac. i. 295. Muſ. Ad. Fr. i. 20. Raj. quadr. 289. Gron. muſ. ii. p. 1. 2. & p. 52. n. 2. Boddaert. nov. act. Cael. vii. 25. n. 1. Seba, muſ. ii. t. 1. f. 7. & t. 18. f. 2. & t. 22. f. 3.—Amph. vulgaris. Laur. amph. 66. n. 119.—Ibijara, Bodty, Cega, Cobre vega, Cobra de las Cabecas, in Braſil.—Traſgobane. Bomare. Dict. de Hiſt. Nat.—L'Enfumé. Encyclop. Method.

Sooty Amphisbaena.

we have not found any poiſon fangs in its upper jaw. Above the vent there are eight ſmall tubercular eminences, which are perforated, and contain each the excretory ducts of ſmall glandular bodies under the ſkin, ſimilar to thoſe deſcribed in the grooved biped at the end of the ſecond volume of this work. The body of this ſpecies, above the vent, has uſually two hundred rings, and thirty rings below the vent *.

The ſooty amphiſbaena is found in India †, particularly the iſle of Ceylon, and likewiſe in America. Its habits are in a great meaſure unknown; but it is known to feed on earth worms, beetles, ſcolopendrae, and various inſects, and that it is peculiarly fond of devouring ants. Far from endeavouring to deſtroy this ſerpent, or even to diminiſh its numbers, the inhabitants

* In the Syſtem of Nature a ſpecimen is quoted having two hundred and nine rings on the body, and twenty-five on the tail.—T.

† According to the Syſtem of Nature all the ſpecies of this genus are found in America only.—T.

tants of thoſe countries in which it is found ought rather to encourage its multiplication, on purpoſe to leſſen the number of thoſe deſtructive ants, which in numberleſs legions often deſtroy all before them, leaving every thing deſolate, as if deſtroyed by fire. Having the power of advancing or withdrawing itſelf without injury, in conſequence of its ſtructure, this ſerpent is peculiarly fitted for penetrating into the ſubterraneous retreats of ants, worms, and other inſects; and is able to dig deeper than any other ſerpent, its ſkin being very hard, and its muſcles very ſtrong.

Sooty Amphiſbaena.

Sp. II. *THE VARIEGATED AMPHISBAENA* *.

Variegated Amphisbaena.

"THIS ſpecies or variety is variegated with white black, bright red, and grey; and is ſaid to be found in America."—T.

Sp. III. *THE MAGNIFICENT AMPHISBAENA* †.

Magnificent Amphisbaena.

"THIS ſpecies is elegantly variegated with purple violet colour and yellow, having a pale yellow head. It is from America."—T.

Sp.

* Amph. varia. Syſt. Nat. ed. Gm. i. 1124. G. 127. Laur. amph. 66. n. 120. Seba, muſ. i. t. 88. f. 3.

This ſpecies and the next two, are placed here on the authority of the Syſtem of Nature. In the original, the authorities belonging to them, from Seba and Laurenti, are all placed as ſynonimes of the ſooty ſpecies, without even any notice of their variation. They ought at leaſt to be conſidered as ſeparate varieties.—T.

† Amph. magnifica. Syſt. Nat. ed. Gm. i. 1124. G. 127. Laur. amph. 66. n. 121. Seba, muſ. ii. t. 100. f. 3.

SP. IV. *THE YELLOW AMPHISBAENA* *.

"INSTEAD of the yellow, this ſpecies might have been called the yellow headed amphiſbaena; as the body is variegated with white and brown, and the head only is yellow. It is from America."—T. Yellow Amphiſbaena.

SP. V. *THE WHITE AMPHISBAENA* †.

THIS ſpecies differs from the ſooty chiefly in colour, being white, often without ſpot, though ſometimes the fore parts have a reddiſh tinge. The top of the White Amphiſbaena.

* Amph. flava. Syſt. Nat. ed. Gm. i. 1124. G. 127. Laur. amph. 67. n. 122. Seba, muſ. ii. t. 73. f. 4.

† Amph. alba. Syſt. Nat. ed. Gm. i. 1124. G. 127. Muſ. Ad. Fr. i. 26. t. 4. f. 2. Laur. amph. 66. n. 118. Gronov. Zooph. n. 79. Boddaert, nov. act. Caeſ. vii. 25. n. 2. Scheuchz. phyſ. ſacr. ii. t. 652. f. 1. Seba, muſ. ii. t. 24. f. 1. & t. 6. f. 4.—Le Blanchet. Encyclop. Method.

White Amphisbaena.

head is covered by six large scales, in three rows of two each. The body has usually two hundred and twenty-three rings, and the tail sixteen rings *. The upper edge of the vent has eight perforated tubercles, similar to those already described in the first species of this genus. A specimen in the royal cabinet measures seventeen inches long, of which the tail, which ends in a round blunt point, is an inch and a half. The muzzle, before the eyes, becomes considerably narrower than the upper part of the head, and ends obtusely.

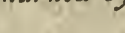
SIXTH

* In the System of Nature another specimen is quoted having two hundred and thirty-four rings above the vent, and eighteen rings below that orifice.—T.

SIXTH GENUS.

CAECILIA.

Having neither ſcales, plates, nor rings, but the ſides are marked by tranſverſe folds of the ſkin *.



Sp. I. *THE IBICARUM* †.

THE form of this ſerpent is cylindrical and extremely clumſy. It has no ſcales; but the back is beſet by a great num- Ibicarum.

* In the ſyſtematic catalogue, following accurately the original French of this work, theſe folds are ſaid to be longitudinal: But, from the plate and deſcription, they are evidently tranſverſe, though not very diſtinctly delineated in the former, except on the tail.—T.

† Caecilia tentaculata. Syſt. Nat. ed. Gm. i. 1124. G. 128. Amoen. ac. i. 489. t. 17. f. 2. Muſ. Ad. Fr. i. 15. t. 5. f. 2. Laur. amph. 65. n. 116. Gron. muſ. ii. 52.

Ibicarum. ber of small projections, which seem to approach in some measure to the nature of scales. The muzzle is rounded, the upper jaw projecting somewhat more than the lower, and is furnished with two small tentacula or fleshy appendages, similar to those of various fish. The eyes are extremely small, and are covered by membranes in such a manner as to be difficultly discernible. From this circumstance, the generic name, which indicates blindness, is derived. The individual described by Linnaeus was a foot long, and an inch in diameter. The plaits or folds of the skin on its sides are usually an hundred and fifty above the vent, and none below it; indeed, it may be said to have no tail or hardly any, as the vent is placed in the under edge of its extremity.

52. n. 1.—Caecilia caerulea. Boddaert, nov. act. Caes. vii. 26. n. 1.—Caecilia ceylonica. Seba, mus. ii. 26. t. 25. f. 2.—Ibicarum. Piso, Bras. 282.—L'Ibiare. Encyclop. Method.

tremity. It is found in America *, and is of a blue colour mixed with brown. Ibicarum.

Sp. II. *THE GLUTINOUS CAECILIA* †.

THIS ſpecies differs from the former in the number of folds of the ſkin, having three hundred and forty above the vent, and ten below it. It is of a brown colour, with a whitiſh line on each ſide. The eyes are even ſmaller and leſs diſtinct than in the ibicarum. Glutinous Caecilia.

" From the deſcription of this ſpecies, it would appear that its tail is longer than that of the former, and that it has no tentacula. It is found in South America and India. The habits of both theſe ſpecies are altoge-

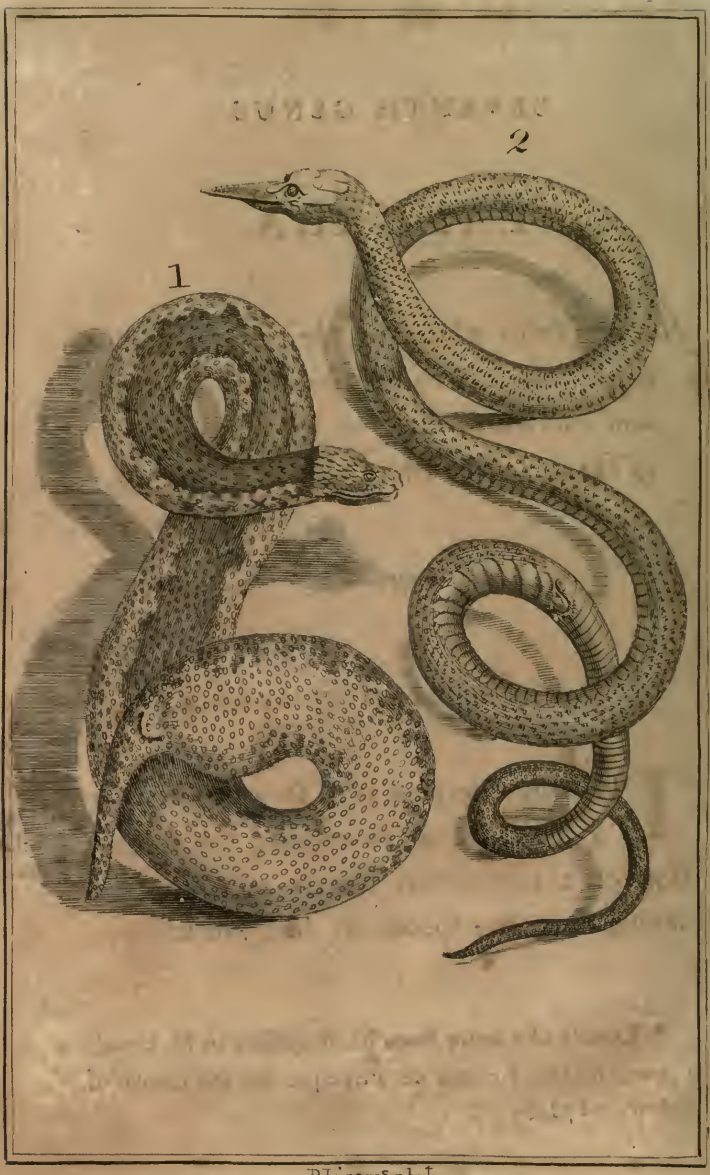
* Sebas ſpecimen is ſaid to have come from Ceyln. —T.

* Caecilia glutinoſa. Syſt. Nat. ed. Gm. i. 1125. G. 128. Muſ. Ad. Fr. i. 19. t. 4. f. 1. Laur. amph. 65. n. 117.—Le Viſqueux. Encyclop. Method.

Glutinous Caecilia.

ther unknown, and it were to be wiſhed that travellers and reſidents in the European colonies, in both worlds, would endeavour to give every information reſpecting theſe and other animals that are found in their neighbourhood."—T.

SEVENTH



D. Lizars Sculp.

1. Langaha -- 2. Acrochord.

SEVENTH GENUS.

LANGAHA.

Having large plates on the belly near the head, ſcaley circular rings near the vent, and imbricated ſcales on the under ſurface of the tail at its end.

Sp. I. *THE MADAGASCAR LANGAHA* *.

Madagaſcar Langaha.

THIS new ſerpent is of ſo very ſingular a ſtructure as to require the formation of a new genus for its reception, of which only one ſpecies is hitherto known. It

* Extract of a letter from M. Brugniere to M. Brouſſonnet, in the Journal de Phyſique for the month of February 1784.

Madagaſcar Langaha.

It unites in itſelf the particular characteriſtics of ſeveral different genera of ſerpents; having the under ſurface of the upper part of its body covered by large plates, like thoſe on the viper and boa genera; lower down than theſe, the body is ſurrounded by complete ſcaley rings, like thoſe of the amphiſbaena genus; and lower ſtill, the under ſurface of a conſiderable part of the tail is covered by ſmall imbricated ſcales.

The individual deſcribed by M. Brugniére was two feet eight inches long, and ſeven lines in diameter at its thickeſt part. The top of the head is covered by ſeven large ſcales in two rows, the row neareſt the muzzle having three ſcales, and the back row four *. The upper jaw is terminated by a long tendinous and flexible appendage, which is ſharp pointed, and covered by ſmall ſcales, meaſuring nine lines in length. According to M. Brugniére the teeth reſembled thoſe of the viper, both in number

* In the plate, the diſpoſition ſeems rather one, two, and four ſcales, in three rows.—T.

Madagaſcar Langaha.

number and form. The back ſcales are rhombic, and of a reddiſh colour; each ſcale near its baſe having a grey ſemicircular line, with a yellow dot in the middle. On the under ſurface of the body there are an hundred and eighty four large plates, of a whitiſh colour, and highly poliſhed: Theſe grow longer as they are farther removed from the head. Below theſe there are forty two complete rings, which ſurround the body. Still lower down the apparent tail begins, and is covered underneath by very ſmall ſcales *. But the true tail of the animal is conſiderably longer, as the vent is placed between the ninetieth and ninety firſt large plate, being ſurrounded by four ſmall ſcales †.

M.

* From the expreſſion in the original, it would appear as if the upper ſurface of this part of the tail were covered by half rings of ſcales; as the authors words are, "This apparent tail, covered underneath by ſmall imbricated ſcales, begins about the middle of that portion of the animal which is covered by ſcaley rings."—T.

† In the plate, the vent is placed exactly between the laſt

Madagaſcar Langaha.

M. Brugniére, having examined three different individuals of the langaha, aſſures us that the number of large plates and rings is variable. One of the individuals he examined, inſtead of the colours above deſcribed, was violet, with a number of darker ſpots on the back.

This ſerpent is conſidered as very dangerous by the natives of Madagaſcar; and, as its teeth are ſimilar to thoſe of the viper, there is reaſon to ſuppoſe that it is poſſeſſed of venom.

EIGHTH

laſt large plate of the belly and the firſt ſcaley ring of the tail; whereas, by this deſcription, there are ninety-four large plates on the under ſurface of the tail, before the commencement of the ſcaley rings.—T.

EIGHTH GENUS.

ACROCHORD.

Having the whole body and tail covered by small tubercles.

Sp. I. *THE JAVAN ACROCHORD.*

Javan Acrochord.

LIKE the laſt deſcribed, this ſerpent requires the formation of a new genus, as it does not agree in characters with any of thoſe hitherto known to naturaliſts. We owe its deſcription to M. Hornſtedt *. The whole ſkin of the body and

* See Memoirs of the Stockholm Academy of Sciences for 1787, p. 306; and the Journal de Phyſique for 1788, p. 284.

Javan Acrochord.

and tail is covered by warts or tubercles, each of which has three ridges. The top of the head is flattened, and covered by small imbricated scales. The opening of the mouth is small, having a double row of teeth in each jaw, without any poison fangs. The upper surface of the body is black, and the under surface whitish.

The acrochord grows gradually larger from the head to the vent, where it exceeded three inches in diameter; while behind the head the diameter is little more than one inch. The whole length of the individual examined by M. Hornstedt was eight feet three inches, of which the tail measured eleven inches, and was only half an inch in diameter at its origin. The skin of this serpent forms part of the cabinet of the King of Sweden.

This new species of serpent was found by M. Hornstedt in a large forest of pepper trees, near Sangasan, in the Island of Java. It was a female; and five completely formed

ed young ones, about nine inches long, were found within her. Some Chineſe that were along with him, feaſted on the fleſh, and declared it to be excellent.

Javan Acrochord.

OF

OF MONSTROUS SERPENTS.

Monſtrous Serpents.

WE have now completed the deſcription of all the ſpecies of ſerpents which have been noticed by naturaliſts and travellers; having preſented to our readers an account of their external figure, and the chief points of their internal ſtructure; thus communicating life and motion to theſe inanimate pictures, by pointing out the principal reſults of their organization and form, by aſſembling the common attributes of all the ſpecies of each genus, and forming, from theſe, diſtinctive characters of each groupe. We have extended theſe views farther, having endeavoured to unite together all the qualities, powers, habitudes, and forms of ſerpents of all the genera, ſo as to conſtruct a general view of the whole order, which is placed before the detailed examination of the particular ſpecies.

In

Monſtrous Serpents.

In our reſearches, we have endeavoured to diſcover which of their forms, habits, and properties were conſtant and regular, and which were ſubject to variety. Travelling in imagination over the ſurface of our globe, to inveſtigate the various ſpecies of ſerpents, when we found the ſame ſpecies under different climates, we have always endeavoured to aſcertain, as far as poſſible, the influence of temperature in modifying or changing the figure or habits of the ſpecies; and have uniformly attempted to diſtinguiſh between thoſe which belonged permanently to the ſpecies, and ſuch properties as are only variable and relative, and produced by difference of age, or place, or ſeaſon.

It now only remains, for completing our account of the order of ſerpents, to give ſome account of the very great variations which ſome individuals may preſent; departing, from the influence of particular cauſes, from the general rules of their formation, and giving, what may be termed, examples of monſtroſity in their ſtructure.

Monſtrous Serpents.

However iſolated theſe circumſtances may appear, and however out of the ordinary line of ſtudy to naturaliſts, who chiefly ſearch for conſtant and regular characters, conſidering only the ſpecies, and not the individual, as their object, yet theſe monſtrous configurations may have their uſe, by placing in a new and ſtronger light thoſe permanent and general facts which we have already endeavoured to inveſtigate.

On a firſt conſideration, a monſtrouſly formed animal ſeems an exception to the laws of Nature: It is, however, only an exception to the effects which theſe uſually produce. Theſe laws, uniformly unchangeable, like the eſſence of things from which they are produced, are neither alterable by time nor place; but their reſults are augmented or diminiſhed, according to the peculiarity of circumſtances under which they operate: Their different actions either combine together, in a more than ordinary manner, or thoſe which uſually are combined act ſeparately from each other. When

they

they combine beyond common, the effects which uſed to be ſeparate are united, and a production monſtrous in exceſs is the conſequence. On the other hand, when cauſes, which uſually act in conjunction, happen to act ſeparately, or that one or more of them do not act in the ſame ſubject, the uſual reſults of the powers of nature become diminiſhed, or in part do not take place, and a defective monſtrous production follows.

Hence monſters may be ſaid to proceed from a combination or decompoſition of the ordinary powers of nature, operated by itſelf; and theſe may ſerve to develop the myſtery of thoſe immenſe and wondrous forces, infinitely better than by any proceſs of art, by preſenting them under new points of view; as, in ſomewhat of a ſimilar manner, we diſcover new appearances and properties in bodies, by ſynthetic and analytic proceſſes. Thus, the examination of monſtrous conformations, eſpecially ſuch as are the moſt ſtriking and extraordinary, may

Monſtrous Serpents.

ſometimes lead us to the diſcovery of very important truths; by pointing out new applications or directions of the powers of nature, and conſequently diſcovering to us a greater extenſion of her laws than we were before acquainted with.

When we compare the duration of theſe unuſual reſults, with thoſe which are common and ordinary, and inveſtigate how far the compoſition or defect of ſeveral cauſes influence the appearances, both with regard to the quantity of effect produced, and their continuance, we ſhall almoſt always find that monſtrous productions ſubſiſt for a ſhorter period than the ordinary being to which they have the neareſt affinity; probably becauſe the circumſtances which have occaſioned the unuſual combination or diſunion of the ſeveral powers from which the monſtroſity originates, hardly ever act equally, and in the ſame proportion, in every part of the monſtrous being which they have produced; and hence, as its different organs have not the requiſite conformity

with

Monſtrous Serpents.

with each other in their functions, their duration cannot equal thoſe which are conſtructed in the ordinary manner.

As ſerpents are liable to the greater or leſſer influence of all the cauſes which modify the exiſtence of living creatures; their various ſpecies, in common with other animals, not only ſuffer the ſame varieties in colour, both conſtant and temporary, which are produced by difference of temperature, or other particular circumſtances, but are likewiſe ſubject to monſtrous conformations, from cauſes which operate upon their organs, either while mere unformed embryos, before or after they are enveloped in the egg, or even after they have burſt from its membranes; as, while very young, their organization is extremely delicate, and very liable to injury. Having neither legs nor arms, ſerpents cannot become externally monſtrous by redundance or defect, except in the head and tail: And hence, every other circumſtance being equal, we muſt expect to find fewer monſters among ſer-

Monſtrous Serpents.

pents than in quadrupeds, birds, fiſhes, and other animals which have a more complex form.

It is not, however, very uncommon to meet with ſerpents with a double tail. The tail having been divided longitudinally by ſome accident; both portions have recovered the ſkin on the divided ſurfaces, and two tails appear almoſt equal in every reſpect. In one of theſe only are there any vertebrae; as we have already had occaſion to remark with regard to lizards in ſimilar circumſtances. This kind of monſtroſity, which has been occaſioned by accidental diviſion of parts, is leſs worthy of remark than certain examples of ſerpents which have been brought into the world with two heads. As ſimilar monſters frequently occur in almoſt all the orders of animals, we have no reaſon to doubt the exiſtence of ſuch among ſerpents. Several travellers, however, have ſpoken of two-headed ſerpents, as a regular and conſtant ſpecies; miſled, perhaps, by what has been erroneouſly

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ouſly aſſerted of the amphiſbaena, which were long alleged to have a head at each extremity of their bodies, which they could uſe indifferently. Improving upon this fable or miſtake, they have placed both heads at one end of the body. In fact, ſeveral perſons from Louiſiana have aſſured us, that in that country two-headed ſerpents formed a diſtinctly permanent ſpecies, which multiplied in the uſual way like other ſerpents. Independent, however, of all analogical reaſonings, which contradict this opinion, none of thoſe travellers pretended to have ſeen a female two-headed ſerpent produce young ſerpents with two heads, or eggs in which the embryos had that extraordinary conformation. Theſe ſerpents with two heads muſt always be conſidered as accidental monſters; exactly in the ſame manner as the dogs, cats, pigs, calves, and other animals, which occaſionally occur with two diſtinct heads.

Particular circumſtances, in regard to climate, may perhaps occaſion ſuch monſters

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to be more frequent in ſome countries than in others; and ſlight obſervers have been ſatisfied, by two or three iſolated inſtances of two-headed ſerpents, that the abſurd ſtories ſo long related on this ſubject were perfectly well founded. This error has been the more readily fallen into, with regard to ſerpents, and other animals that continue long concealed, and are conſequently difficultly met with; inſomuch that two or three ſpecimens have often been conſidered, by travellers, as ſufficient on which to ground a new ſpecies: Indeed, in common circumſtances, ſuch may ſuffice for the purpoſe; but muſt not be truſted to in caſes of conformations which are ſo extraordinary as to contradict the ordinary courſe of nature.

The ancients have likewiſe made mention of theſe monſtrous two-headed ſerpents. They are to be found in the writings of Ariſtotle. Elian ſays, that in his time they were often found near the river Arcas; and deſcribes them as three or four cubits

cubits in length, with black bodies and whitiſh heads. Aldrovandus had a two-headed ſerpent in his cabinet at Bologna. Joſeph Lauzoni, and other obſervers of nature, mention ſimllar monſters*; and there is a ſpecimen in the royal cabinet. Monſtrous Serpents.

We have no information of the place from which the above mentioned ſpecimen was tranſmitted to the royal cabinet. Its length is ten inches and a ſixth part, of which the tail is an inch and a half. The circumference, where thickeſt, is thirteen lines. The back ſcales are oval and ridged. It has but one neck, from which ariſe two diſtinct heads, exactly ſimilar to each other, and two thirds of an inch long. The ſcales on the top of theſe heads reſemble thoſe on the back, excepting one large ſcale immediately over each eye. Each mouth is furniſhed with a forked tongue, and with moveable poiſon fangs. The two heads

* Miſcel. curioſ. nat. Vien. Anno 1690, p. 318.—See likewiſe the Philoſophical Tranſactions, and the Obſervations of Redi.

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heads are joined together at an angle of more than an hundred and fifty degrees; and, when both mouths are open, the light may be ſeen through them, as the throats unite into one common gullet. A little behind the heads, the body is conſiderably turned to the left, owing to the ſkin being conſiderably ſhorter on that ſide.

The colour of the upper parts of the body has been injured by the ſpirits, but ſeems brown; and the under ſurface is whitiſh. The belly has two hundred and twenty-ſix large plates, and the under ſurface of the tail ſixty pairs of ſmall plates. It evidently belongs to the genus of vipers, of which it is a venomous ſpecies, and probably ought to be referred to the lance-ſhaped viper, Sp. xxii. Vol. III. p. 317.

Redi * mentions having found a two-headed ſerpent, on the banks of the Arno, near Piſa, baſking in the ſun in the month of January. It was a male, about two palms

* Obſervations by Francis Redi, in Collect. Acad. partie etrangene, IV. 464.

palms long, and the thickneſs of his little finger. Its colour was like ruſt of iron, having black ſpots on the back and belly, which were darker above than underneath. A white bar formed a kind of collar around the double neck; and the extremity of the tail, which was dotted with white, was ſurrounded by a ſimilar bar. Each of the necks was about two finger breadths in length; and both theſe and the two heads were in every reſpect like each other, and perfectly well formed. Each mouth was furniſhed with a forked tongue; but there were no poiſon fangs. Redi made ſeveral experiments, by making it bite different animals; none of which felt any troubleſome conſequences. Monſtrous Serpents.

In this monſtrous ſerpent there were two wind pipes, and conſequently two diſtinct lungs, which were entirely ſeparate from each other, and of which the right lung was ſomewhat larger. There were two hearts, each in its own pericardium, and each having its own ſyſtem of blood veſſels: Of theſe,

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theſe, the heart on the right ſide was rather larger than the other. There were two gullets, and two ſtomachs of conſiderable length, which united in one common inteſtine.

After having been kept three weeks without food, the ſtomachs were entirely empty, and there remained very little excrementitious matter in the inteſtines, with a ſmall quantity of mucus, in which a great number of very ſmall and lively worms were intangled, ſome of which were clear white and others reddiſh.

There were two livers, that on the right ſide being larger than the other; and on it there were five round and prominent ſmall veſicles, each of which contained a ſmall worm of the ſame kind with thoſe found in the inteſtines. In all other reſpects the anatomy of this two-headed ſerpent reſembled that of common ſerpents with one head.

END OF THE NATURAL HISTORY OF SERPENTS.

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